



**PETE
STREET™**



Where
Neighbors
Get Energy
Savings™

Neighborhood Leader's Guide

Version 1.0

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Clean Energy Durham wishes to acknowledge the support of the North Carolina Community Development Initiative, Inc. for production of this manual. It also wishes to acknowledge the Durham community for providing years of support for the work of Clean Energy Durham on which this manual is based. Any opinions, conclusions, or recommendations expressed in this publication are those of Clean Energy Durham and do not necessarily reflect the views and policies of the funders.

Neighborhood Leader's Guide

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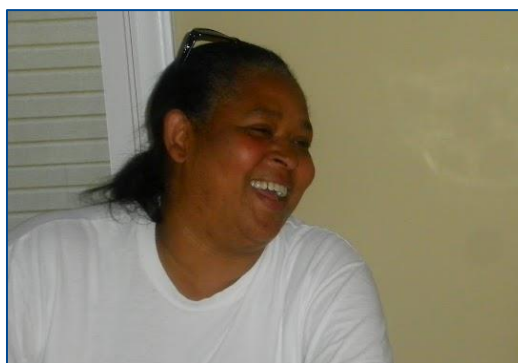
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1. Introduction

1.1 Welcome to the Pete Street® Neighborhood Leader's Guide

The *Pete Street Neighborhood Leader's Guide* is a resource for neighborhood volunteers. It provides practical advice on how to plan and implement a neighbor-to-neighbor energy education program in your neighborhood. With this type of neighborhood program, neighbors will save money on their energy bills and at the same time create a safer and more community-spirited place to live.

If you are reading this, you are probably a person who cares about your community and neighborhood. You are willing to volunteer to bring valuable information to your neighbors. You understand the value of connecting neighbors to make your street a more comfortable, secure place to live.



You may be a person who knows a lot of ways to save energy or you may be a person who knows very little about this but wants to learn. Either case is a fine place to begin as a neighborhood leader using the *Pete Street Neighborhood Leader's Guide*.



This *Guide* is designed to give you ideas for fun neighborhood activities for learning about saving energy and suggestions on how to get neighbors talking about saving energy and learning from each other. It assumes that there is a community host agency in your area that has decided to start a neighbor-to-neighbor energy program and is helping to coordinate and support neighborhood volunteers such as you. With the support of that agency and this *Guide*, and the knowledge that there are other neighborhood volunteers such as yourself in your area, you are **READY TO BEGIN** the fun and fulfilling work of increasing energy-saving know-how in your neighborhood!

1.2 What is Pete Street®?

The idea behind Pete Street is to provide residents such as yourself with an easy to use set of tools to help you learn how to save energy and money in your own home and then share that information with your neighbors so they can also reduce their energy bills. The goal is to create continuous neighbor-to-neighbor learning and energy-saving activities that repeat themselves over and over again.

Pete Street was developed by Clean Energy Durham, a non-profit organization in Durham North Carolina. Since 2007, Clean Energy Durham has been a pioneer in neighbor-to-neighbor energy education, creating a replicable model for other communities.

Pete Street got its name from a guy we know named Pete who insulated his attic and told his neighbors about it, and even showed a couple of them how to do it. “Pete” became shorthand for anyone – man or woman – who knows something about saving energy in the home and is willing to share this knowledge with neighbors.

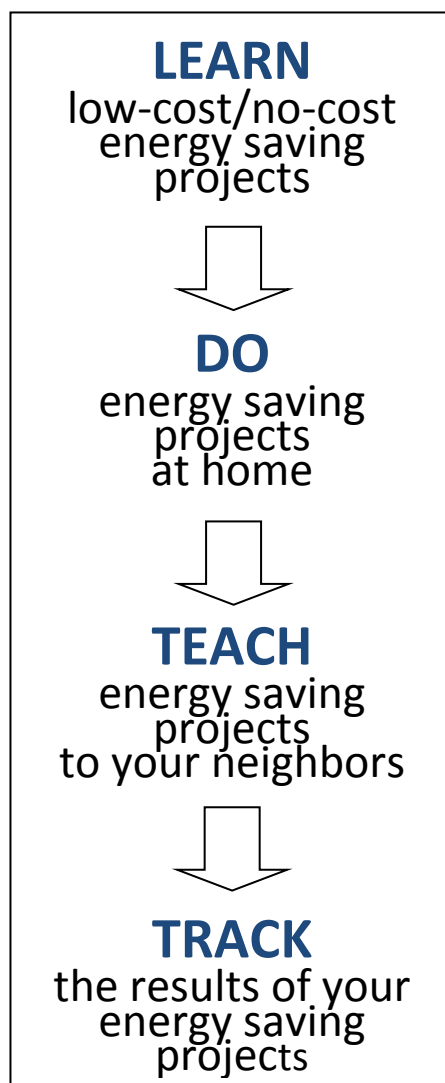


1.3 The Learn – Do – Teach Model

Pete Street® helps find all the neighborhood “Petes” on many different topics related to saving household energy and connects them with their neighbors.

By following the LEARN-DO-TEACH-TRACK model, you can find a role and level of participation for most residents in your community. Some will really want to get into it, learning about energy efficiency, doing projects in their own homes, and then sharing their knowledge with their neighbors. Others will just want to learn and implement new behaviors in their own home. Still others may enjoy setting up for and recruiting workshop participants but cannot commit to teaching or leading a workshop.

Whatever the ability and interest level, everyone should be invited to be a part of this groundbreaking energy education effort.



1.4 Why Neighbor-to-Neighbor?

Neighbor to neighbor learning is effective. Research shows that people are more likely to adopt new habits when they are encouraged by peers, when they believe the behavior is the norm, when they get reminders, and when they make a public choice to adopt the new habit.¹

The closeness of neighbors also creates an opportunity for technical assistance. When a group of neighbors learns how to program a thermostat together, anyone who is confused can ask a neighbor for help and get personal, in-home assistance.

Houses within a neighborhood are likely to be similar. Neighbors are therefore likely to find it useful to compare their home energy use and the technologies and techniques they've found successful for saving energy.

Workshop Attendee Testimonial

"I liked the neighborhood model. Neighbors are more receptive to hearing about this topic from other neighbors. It helps us to be involved in the neighborhood and to meet our neighbors. We started talking about this as a neighborhood and then we talked about other issues of concern in our neighborhood. It encouraged us to be more active."

DB

Fisher Heights Neighborhood

People prefer to attend workshops in their own neighborhoods. Surveys have indicated that households would be more likely to attend an energy reduction workshop if it were neighborhood-sponsored than if it were sponsored by the City, County, Cooperative Extension, or the local utility provider.

Bringing neighbors together creates community. A sense of community enhances the lives of everyone involved and makes for a safer and healthier place to live.

¹ See, for example, *Fostering Sustainable Behavior*, Doug McKenzie Mohr; *Switch*, Dan Heath and Chip Heath.

1.5 Basic Terms Used in Pete Street®

As a neighborhood leader it may be helpful for you to read through the following terms that are being used in the Pete Street program. Don't worry about remembering all of them. You will hear them many times as you help set the program up in your own neighborhood. The idea has been to develop and provide a set of terms that would be easy to remember, fun to work with, and something that would encourage neighbors to get involved in the learning and teaching process.

Pete Street - Where Neighbors Get Energy Savings® - is the trademarked name and tag line for the program. "Get" is used as both the action process of receiving energy savings, and the learning process of understanding how to achieve the savings.



Community Host Agency – the entity that purchases the Pete Street program and website access from Clean Energy Durham and coordinates the community's participation.

Community Sponsor - a person, organization, or firm that provides financial or other support to the Community Host Agency for the community's Pete Street program.

Basic Energy Education or BEE Workshop – a one-hour workshop that teaches how homes use and lose energy, including a fun and interactive bingo game about ways to save energy.

Hands-On Workshop or HOW Workshop – a one-and one-half hour workshop where residents learn no-cost/low-cost energy saving projects through hands-on exercises under the guidance of one (or several) Elite Pete® volunteers.

Energy Pre-Pete™ - a resident who has attended a workshop at which he or she learned no-cost/low-cost energy saving techniques.



Energy Pete™ - an Energy Pre-Pete™ who has taken what he or she learned at a workshop and done it in their own home.



Energy RePete™ - an Energy Pete™ who has taught at least one other neighbor one or more energy saving techniques he or she has done.



Elite Pete® - a volunteer who has completed the 18-hour Elite Pete training program and has committed to leading BEE and HOW workshops.



BEE Pete™ - a neighborhood resident who has attended a BEE workshop and then led a BEE workshop using the *BEE Workshop Leader's Guide*.



Elite Pete Trainer – a volunteer who has agreed to teach the 18-hour Elite Pete training program.

Workshop Host – a household that agrees to host a BEE workshop, a HOW workshop, or one of the Elite Pete training sessions. Also could be someone hosting a workshop at their church, community center, or other community facility.

Workshop Participants – any resident that attends a BEE or HOW workshop.

Elite Pete Training Session – one of a series of eight or more training sessions covering 18 hours of instruction time that are taught by an Elite Pete trainer. Completion of the training course, which includes an opportunity to apprentice at one or more workshops, earns the trainee the Elite Pete classification.

Elite Pete® Apprenticeship Session – the last stage of the Elite Pete training where each Elite Pete trainee leads portions of or whole workshops, while still having the trainer and several other Elite Pete trainees present for support and feedback.

Pete Street® Badges – badges that are earned by residents who undertake one of the no-cost/low-cost projects taught through the Pete Street® workshops and badges available for other energy saving projects or items that a household has acquired and for which they can be a resource for their neighbors. (See Section 1.6)

DIY (do-it-yourself) – All of the core projects taught through the Pete Street system are considered do-it-yourself projects. That is to say, all of the projects can be done by a resident with no previous experience or expertise. They can be performed with simple hand tools and a brief explanation and demonstration.

1.6 Pete Street® Badges

The Pete Street home energy saving program teaches 17 different low-cost and no-cost projects, such as cleaning your refrigerator coils or installing outlet gaskets that residents can do in their own homes. In addition, Pete Street teaches the value of hiring professionals for other key energy saving projects, such as insulating the attic floor. Pete Street also recognizes other energy saving things that your neighbors may have done or products or systems they may have purchased or installed that they can now speak with their neighbors about – such as purchasing a hybrid automobile or installing a ground-source heat pump.

Because the whole idea behind Pete Street is to get people sharing what they know with their neighbors, a set of badges has been designed to help in identifying each of these skills and experiences. The badges can be copied and used however you can imagine they would be helpful in promoting the program in your community.

Tip:

To share information about who in your neighborhood has energy saving experience and knowledge they would like to share, one role for a neighborhood leader is to **maintain a list of these Energy Pete™ residents** and what badges they know about. You could select one or several badges each month and publish in your newsletter or website a list of who knows about those items and is willing to share what they know with other neighbors.

Pete Street® Badges

	Programmable thermostat installation		Refrigerator energy saving
	Programmable thermostat programming		Clothes dryer vent maintenance
	Shade control		Clotheslines/racks
	Fireplace air sealing		Computer energy saving
	Caulking floors, walls, and ceilings		Bicycle maintenance and safety
	Caulking fans and vents		Bus riding
	Caulking doors and windows		Carpool/vanpool riding
	Caulking plumbing penetrations		Sealed crawl space installation
	Outlet insulator installation		Attic insulation and air sealing
	Window film installation		Duct sealing
	Attic access sealing		Solar water heating installation
	Furnace filter installation		On-demand water heating installation
	Door weatherstripping		LED lighting installation
	Doorsweep installation		Geothermal system installation
	Pipe wrap installation		Photovoltaic (PV) installation
	Clothes washing with full loads in cold water		Time of day pricing participation
	Water heater insulation and temperature setting		Hybrid car
	Low-flow faucet aerator and showerhead installation		Electric car
	CFL installation and lighting myths		Energy monitor installation and energy tracking
	Power strips and phantom energy		

"Creativity increases in groups where some of the people, but not all, have worked together in the past."

Connected, Christakis & Fowler

2. Getting Started

2.1 Getting Started in Your Neighborhood

Your neighborhood already has one leader ready to get started: you! Your next step is to find other neighbors to help you get the ball rolling. You'll need something to say to them to get them as excited as you are. Your best bet is to explain to them why YOU are interested in this.

Who should you talk to first?

There are three kinds of neighbors to look for:

- Neighbors you already know and who will get involved because they know and like YOU. These people are easy to find!
- Neighbors who know a little something about saving energy. Ask around. Look around. Does anyone line dry their clothes? Just knowing ONE THING about saving energy makes someone a valuable information source in the neighborhood.
- Neighbors who know a lot of other people in the neighborhood. These "community connectors" will help bring more and more people to activities.

Tip:

Use many types of messages such as **flyers, email blasts, yard signs, word-of-mouth, door hangers, and social media** to let lots of people know about the program. The more times and different ways neighbors hear and see the message, the more likely it is they will decide to attend a workshop to learn more.

What does “getting involved” mean?

You'll need to explain the first step, which is for someone in the neighborhood to teach a one-hour Basic Energy Education (BEE) workshop to a group of neighbors. This is a fun way to start learning. It includes a bingo game and usually gets everyone into a spirited discussion.



Energy Bingo and cupcakes works every time!!

You can partner with the neighborhood leaders you have identified and all of you can work together to coordinate the first BEE workshop. This is a great way for all of you to learn how easy it is to schedule a BEE workshop and how much workshop participants enjoy learning how to save energy.

Coordinating the BEE workshop involves three easy steps: select a convenient location for the workshop, invite neighbors to the workshop and determine which neighborhood leaders will lead the workshop.

The BEE workshop can be held at the neighborhood community center, church, library, coffee shop and even someone's yard or front porch. These locations all represent community friendly places where neighbors will feel welcome to attend a fun, one-hour workshop. When scheduling a location for the workshop, be sure to confirm the date and time prior to advertising the workshop and if applicable, determine who is responsible for opening and locking the facility and which neighborhood leaders will set-up for the

workshop and which neighborhood leaders will clean-up after the workshop. Set-up and clean-up is usually limited to arranging tables and chairs to accommodate the attendees but can include additional considerations if neighborhood leaders agree to include refreshments as part of the workshop activities. Providing refreshments is a good way to relax attendees and to liven up the workshop atmosphere but neighborhood leaders should consider the additional time and cost of providing refreshments and it is also important to consider tasty as well as healthy food items.

When you begin to promote the program and begin recruiting neighborhood leaders for the BEE and for other workshops you should not be discouraged if the first neighbors you talk to are not yet interested in volunteering. Sometimes even your friends and relatives will not be able to make the time when you first approach them for help. If this happens to you, you must keep in mind what motivated you to volunteer with this unique and innovative program. Your reason for volunteering is your passion and you will eventually find there are passionate people throughout your community waiting to be asked to participate in a program that saves money, helps the environment, builds community, and helps their neighbors. Everyone's passion may not be the same as yours, but the motivation to help will be just as powerful as yours. The trick is to continue to talk to your neighbors about the program and let them know how valuable their assistance is to spreading the program throughout the neighborhood and the community. Your community program manager is there to assist you if for any reason you are unable to locate volunteers from your neighborhood and community.

Tip:

Focus on the **quality of the experience** rather than the quantity. If one person shows up for an energy workshop, make it a fun and rewarding experience and ask the attendee to share what they learned with their friends and neighbors.

2.2 Look for Opportunities to Partner

One of the easiest and most effective strategies you can use to build interest quickly in your program is to look for opportunities to partner with organizations that are already serving neighborhood residents.

This could be a church, service organization, community development corporation, housing provider, workforce development office, garden club, or any organization that meets in or is serving the area. You can talk to the organization leaders about promoting and coordinating the one-hour BEE workshops to their members at regular meetings or special events.

Groups that have an ongoing relationship with your neighborhood will be strong allies and can really help spark interest amongst your residents. You may also find that these organizations are willing and interested in supporting the program with donations of supplies, cash, or volunteer time which could be a helpful boost as you are getting your program underway.

These partnerships will certainly help get your program established and will promote the volunteering concept. As more of your residents are involved, look for opportunities for them to take leadership roles and for other organizations to provide supporting roles as needed.

Tip:

If you are having some difficulty finding households able to volunteer their homes for workshop sites, look for organizations or owners who may have vacant homes in the neighborhood that they would be willing to open up for a one-hour BEE or one and one-half hour HOW workshop. This might be **a local Habitat for Humanity chapter or local home builder, a housing management firm, or even a local realtor** representing an owner who has a vacant house to sell or rent.

2.3 Recruiting Volunteers

You will feel a great sense of reward when your neighborhood residents step up and agree to take on various tasks and opportunities to serve the neighbor-to-neighbor program. As you recruit passionate people to serve as neighborhood leaders you should keep in mind that your neighborhood leaders have various strengths and preferences and that you should offer them volunteer tasks that match their volunteer desire.

Some of the roles for neighborhood leaders are described below. You don't need all of these roles filled to have a great neighbor-to-neighbor program in your neighborhood. They are described here as suggestions to help you get as many neighbors involved as possible.

- **Neighborhood coordinator** – acts as liaison with community host agency, coordinates outreach within their neighborhood, communicates with other volunteers, and recruits hosts and sponsors
- **Block organizers** – distribute flyers and information to residents within a block or section of the neighborhood, follow up with residents
- **Elite Pete® volunteers** – participate in 18-hour Elite Pete training program and then lead BEE and Hands-On Workshops
- **BEE Workshop leaders** – teach one-hour Basic Energy Education (BEE) workshops
- **BEE Workshop hosts** – invite neighbors to their home or meeting place for a one-hour basic energy education workshop
- **Hands-On Workshop hosts** – invite neighbors to their home for a one and one-half hour Hands-On Workshop and coordinate with an Elite Pete who would lead the workshop
- **Communication coordinator** – gets the word out through flyers, emails, phone calls, etc.

Tip:

Play to people's strengths. Be sure that everyone takes on responsibilities that they feel they can do, and that they most enjoy.

Keep in mind that recruiting volunteers for these roles is not an exact science. Some people may naturally come forward because they are already interested in energy savings. Others may come from personal appeals, or from having seen or heard about an event that sounded like something fun and rewarding. However it happens, take time to celebrate the value that each of you brings forth and make sure all of you join together frequently to celebrate and show appreciation for your commitment to build community and save energy.

Examples of fun ways to celebrate:

- Hold a community pot luck or cookout
- Organize a free ice cream day or free sandwich day at a popular local business while encouraging those who attend to share information about the energy program with other people in line at the business
- Collect buy one, get one coupons from local restaurants and have your volunteers meet you for half price meals and conversation
- Gather as a group and attend other energy efficiency and conservation workshops at a local hardware store to learn even more energy savings tips
- Find a sponsor to fund brightly colored t-shirts, hats, badges, stickers, etc. designed by neighborhood students or residents that can be worn around the neighborhood and to special events



2.4 The Neighborhood Coordinator Role

It can be very fulfilling to help organize your neighbors and see their faces light up when they realize there are simple things they can do to save energy and money in their homes. But organizing your neighbors also is a commitment of your time and you and your neighborhood leaders should only commit time you are sure you can provide. Neighbors will be very disappointed if they make time to attend a workshop and the leaders don't show up for the event.

One way to distribute the volunteer tasks is to form a committee. This could be a small committee of three or four neighbors or perhaps you and one of your key residents that you can count on can co-facilitate the effort.

The advantages of a committee are the opportunity to have more residents engaged in the process and a more structured communication process with committee meetings, meeting notes, etc. The disadvantages are that committees take work and it is difficult to find people who can commit the time to oversee a neighborhood energy committee.

Finding one of your key residents to co-facilitate the program is a good middle ground approach for the neighborhood coordinator role. You and your neighborhood partner will be able to support each other, play to each person's strengths, and a partnership provides continuity if one person steps down or moves away.



A neighborhood leader demonstrates where energy is used in the home on the Use/Lose display board.

Below are some examples of things you could do as a neighborhood coordinator. But it is certainly not necessary to do all these things!

- Recruit hosts for workshops
- Arrange and conduct BEE workshops
- Recruit workshop participants
- Distribute flyers
- Contact workshop participants and encourage them to do projects at home, teach others, and complete a follow-up survey
- Assist residents who do not have email
- Write updates for neighborhood newsletters & blogs
- Attend neighborhood meetings and special events
- Communicate with the community host agency
- Attend training meetings sponsored by the community host agency
- Coordinate door-to-door outreach
- Arrange for presentations about new technology or products that are available

Tip:

Build on existing strengths. If the neighborhood has an **education, newcomers, or environmental committee**, see if that committee can sponsor the initial organizing elements of the neighbor-to-neighbor program to gain credibility and quicker start-up.

2.5 Recruiting Workshop Hosts

Your willingness to help lead the neighbor-to-neighbor program in your neighborhood probably means you already have some strong relationships with some of your neighbors. This is a great place to start to find households that are willing to host a Basic Energy Education or Hands-On Workshop.

Potential hosts are often people who have attended a previous workshop, so getting some BEE workshops scheduled as early as possible is the quickest way to build momentum and find people with an interest in the program.

Some other places to look for potential workshop hosts include

Workshop Host/Leader Testimonial

"... I believe if you are teaching something you are more likely to follow through on the activities yourself. I'm environmentally friendly anyway, but I made changes since I taught the workshop like unplugging the cell phone. I saw the cell phone energy commercial but I didn't unplug my charger until I taught about phantom energy."

**MD
Colonial Village
Neighborhood**

- Someone from the community host agency or a partner organization
- One of the Elite Pete® volunteers
- Someone who may have attended a workshop in another neighborhood
- A prominent neighborhood resident
- A resident who is known as a leader in conserving energy and resources

If possible, have some special incentives for the early adopters who step up and volunteer to host or attend workshops. These don't have to be large or expensive – a \$10 coupon to a local restaurant or a 10% off coupon to the local hardware store can be a good recognition. Also, don't forget that a personal thank you from you or another neighborhood leader will mean a lot to the host and may encourage them to host again.

2.6 Marketing Workshops to Your Residents

Once you have found residents willing to host BEE and HOW workshops, the focus becomes getting your neighbors excited enough to attend and learn the simple energy saving techniques that will save them money every day in their own home.

Don't be shy about sharing your neighbor-to-neighbor energy saving message! Most people will not respond the first time they hear the message. In fact, they may need to hear it a half dozen times or more in a variety of ways before they respond. So you should use many different methods to deliver the message and have it effectively received. Some of the ways to get the message out include

- Word of mouth
- Emails
- Phone calls
- Newsletters
- List serves
- Website
- Flyers
- Neighborhood association meetings
- Community watch or district meetings
- Yard signs
- Door hangers
- Direct mailings
- Resident referrals
- Door-to-door
- Facebook
- You Tube videos
- Neighborhood events like energy fairs, clean up days, block parties, pot lucks, etc.
- Home make-over contests



Using a door-to-door approach to get information to neighbors



Holding a BEE workshop in a highly visible front porch location

You can create your own marketing documents or use documents provided by the community host agency. You can also use several pre-designed templates included with this *Guide* to make it easier for you to get started.

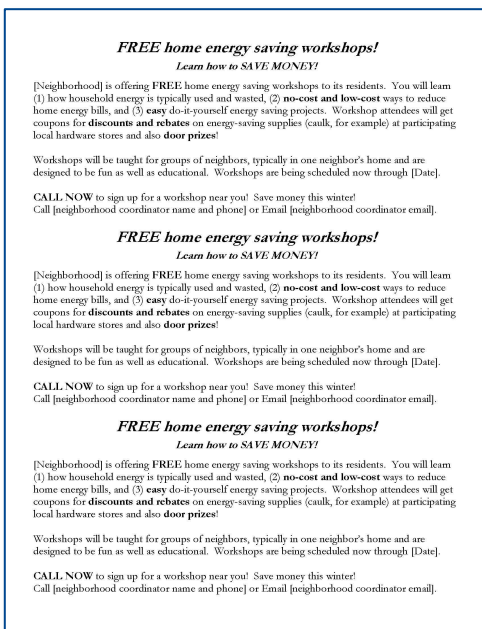
These templates are included in Attachments 1-4 and are shown below. Each can be modified with local information and program logos as needed.



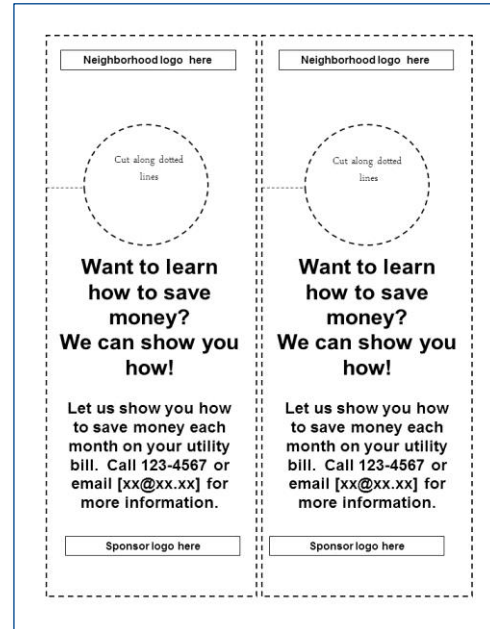
Basic Energy Education (BEE) Workshop Full Page Flyer (Attachment 1)



Hands-On Workshop Full Page Flyer (Attachment 2)



Recruitment Flyer (3 per page) for larger volume distribution (Attachment 3)



Door Hanger Template (Attachment 4)

More Tips for Getting the Message Out:

- Make it easy for residents to have over-the-fence conversations. Provide simple and easy to carry around message reminders like **postcards, bookmarks, half-page flyers, refrigerator magnets, buttons, etc.**
- Engage neighborhood leaders to become **early adopters** as visible marketing agents for the program.
- Find the **neighborhood connectors** who know lots of people or can bridge between groups and spread information faster.
- Break the neighborhood down to smaller areas. If the neighborhood already has a **block captain** or **district system**, use it. If not, this could be an opportunity to start such an effort with each block captain being trained to lead workshops.
- Create goals and incentives. Set targets for participation and offer up a **community-building reward (ice cream social, community picnic, movie showing, etc.)** when the number of participants or amount of energy savings are reached.
- Try some friendly competition. Challenging your adjacent neighborhoods or sections of your own neighborhood, and getting **local vendors to donate some prizes** is a good community engagement strategy that can be fun as well as productive in building interest.

2.7 Creating Compelling Messages

You, your other neighborhood leaders, and the community's program manager should work together to determine the right messages that will engage and motivate the residents in your neighborhood.

You already have a leg up because many residents will already know and trust you. If you can also get some of the better known residents to participate as early adopters, your job of getting the neighborhood's attention will be much easier.

You also may be able to join with a neighborhood business or institution in your marketing effort to take advantage of their presence and credibility in attracting the attention of residents.

The following are sample messages and short testimonial statements that will hopefully give you some ideas of how to craft effective messages that will fit your neighborhood's likely interests.

The Tribe Casebook describes the passion of Apple enthusiasts willing to stand in line for three days to purchase the newest Apple gadget. New owners post pictures of their new purchase on YouTube which increases the interest in the latest gadget. The zeal and passion of *the haves* – those who secured one of the scarce new gadgets - invoked envy among fellow enthusiasts who did not get one. *Desire to be a have* also sparked curiosity among people who were undecided about purchasing the gadget.

The passion of the *haves* and the desire to be a *have* can help drive a neighbor-to-neighbor energy program.

- **Address what is in it for the resident.**

"... I felt I could help the neighbors on my street with the energy fitness of their houses."

"... the coolest part was meeting and connecting with new neighbors."

"... completing several no-cost and low-cost projects can add up to big savings."

"... I was amazed at how much more comfortable my house was after doing some simple air sealing."

"... Residents can save even more money when they partner with their neighbors to purchase reusable energy tools like the refrigerator and dryer brush and when they split the cost of the water heater wrap."

-
- **Highlight that other residents have already done this and they are missing out on something their neighbors are already benefiting from.**

"... Your neighbor just invested 1 hour and less than \$50 to save money every month on their electric bill. Can you afford not to find out how they did it?"

... "Because of the workshop, I would say I saved every bit of \$80-\$100 a month! I switched the light bulbs, cleaned under the refrigerator, unplug things when I'm not using them and all the other things I learned. I went on to teach my daughter and some of my neighbors, so they could save, too."

"... I use the money I'm saving to pay off some other bills."

"... My average energy bill was usually \$150-200 month in the summertime. By changing my habits and applying the no-cost techniques on how to save energy, even in the hottest months I did not go to \$100. To me that was a blessing. It gives me extra money to do something else with."

- **Messages delivered by someone you know will be more effective than faceless communications.**

"... It's been a while. Let's get together and catch up, have some fun, and while we're at it we can learn a thing or two about saving energy and money around the home."

"... Hello neighbors. I'm inviting the 600 block of Maple Street over to get better acquainted and to learn about a few free and simple ways to save energy and money around the home. Here are the details ..."

Tip:

Highlight **early adopters**. Nothing is more effective than seeing and hearing from a fellow neighbor who has already had a positive experience with the program. If you can get early adopters to appear on camera, even for short **30 second YouTube videos**, you not only have a video record of the result, you have an invaluable marketing tool to use to promote other residents to join them.

2.8 Embracing Neighborhood Diversity

You are likely to have a few early adopters that are going to jump at the opportunity to learn and do these simple no-cost and low-cost energy saving projects at home. You are also likely to have many households who really need to reduce their energy bills and live in healthier homes but are not likely to attend a workshop unless a friend or neighbor delivers the message to them.

Neighborhood Volunteer Testimonial

"I volunteered because of my neighborhood. My neighbors need help and I felt that I could help the neighbors on my street with the energy fitness of their houses".

SD

Southwest Central Durham
Neighborhood

Of course, you want the energy savings messages to reach every household, regardless of how well connected they are and how much they already know about their energy use behaviors compared with their neighbors. That means communicating in ways that both younger and older households will respond to, that will appeal to households at different economic levels, and that will reach residents of different races, religions, and cultures.

Here are some suggestions to help you get your message out to all residents in your neighborhood:

- **Have the makeup of your neighborhood volunteers and outreach teams match as closely as possible the makeup of the neighborhood.** This may take time to get organized since some of the resident groups may not have been engaged in neighborhood activities. To try and push forward an outreach effort without providing time to learn who the leaders are is a common mistake and often leads to little interest and few sign-ups.
- **Use other neighborhood resources to identify and help connect with all segments of the community, such as:**
 - Local pastors or church leaders
 - Businesses serving the local community
 - Service organizations that may already be working with specific groups
 - Elected and appointed officials
 - Police/fire staff, particularly crime watch and fire prevention coordinators
 - Public staff at a neighborhood recreation center or library

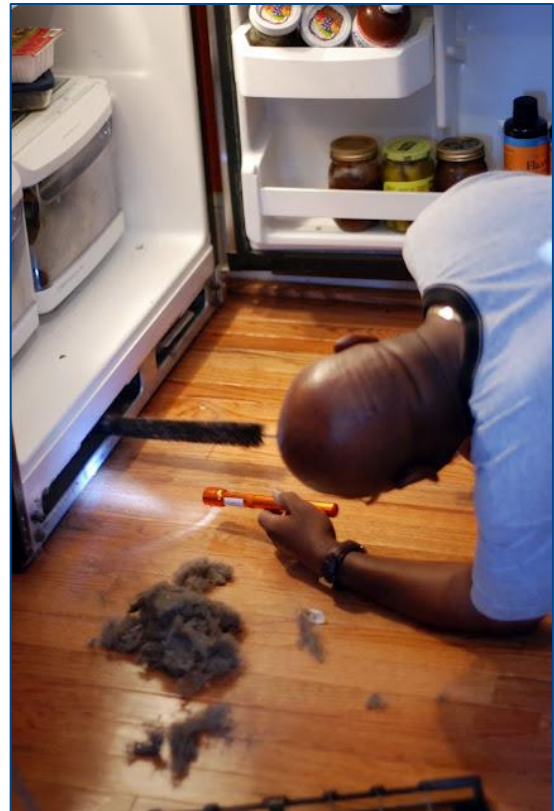
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- **Recruit a volunteer from a segment not normally engaged to take the Elite Pete® training program.** The Elite Pete will be very visible in the community, will probably receive special publicity, and can be a great connection between the program and particular segments of the community that they represent.
 - **Translate information to meet the needs of non-English speaking residents.** If your neighborhood includes non-English speaking groups, you should work with the community host agency to get flyers, handouts, and follow-up surveys translated so that everyone can participate and realize the savings.

2.9 Including Renters in the Program

You may be a renter yourself. If not, you probably know some residents who are renting in your block. The fact is that energy savings are just as important to rental households as they are to homeowners – perhaps even more so. Most renters pay a higher percentage of their income toward their utility bills.

The no-cost and low-cost energy saving tips that are promoted through Pete Street® allow tenants to participate without spending much money and the repairs are so minor that most landlords will have no problems with them being done. However, tenants should be encouraged to talk with their landlord before undertaking any physical changes in their unit.

Cleaning refrigerator coils is one of the simple energy savings projects that renters can usually do in their unit. Others include installing outlet insulators, cleaning their dryer vent, installing CFLs, installing low-flow faucet aerators and showerheads, and using power strips to turn off electricity to their electronics.



You and your neighborhood volunteers should also contact landlords about the energy savings program. They can be an effective part of the outreach effort, particularly if you have several key landlords with multiple properties and high visibility in the community. Things landlords can do to get involved:

- Have one or more property managers or property maintenance staff trained to conduct basic energy education workshops and teach no-cost and low-cost upgrades
- Provide information about neighborhood workshops to tenants
- Provide incentives for tenant participation, such as gift cards or a picnic celebration for high levels of participation
- Install basic energy saving items, such as CFLs and water saving aerators as a means to introduce tenants to energy saving behaviors

Tip:

A good incentive to get renters involved is to provide **free energy savings kits** to as many renter households as possible. Solicit donations from your local utility providers, neighborhood businesses, individuals, and community-focused organizations for basic kits that include refrigerator cleaning brush, low-flow showerhead and faucet aerators, outlet/switch insulators, electrical power strip and timer. Distribute the kits to renter households that attend an energy savings workshop and agree to complete the follow-up survey.

2.10 How to Use Incentives Effectively

You now have seen how to get started with recruiting workshop hosts and participants. But to create the best chance for success, it is always helpful to have free stuff, rewards, and prizes to create incentives for people to attend the workshops, do projects at home, and report their results.

Incentives can be just about anything that someone would like to have. They could be free energy saving supplies like a tube of caulk or a pack of outlet insulators. Or they could be something more substantial like a programmable thermostat or a discount coupon to a neighborhood hardware store. They could also be unrelated to energy efficiency. Who doesn't like to get a free grocery coupon, a coupon to a local restaurant, or free movie tickets?



Door prizes and raffles are good ways to attract residents to a workshop.

As a neighborhood leader, you have two roles. One is to get information from the community host agency about any incentives being provided to the whole community and make sure that information is passed on to your neighbors. The second is to decide whether to add to whatever the community is providing just for your neighborhood residents and then figure out how to find those incentives.

Tip:

Little prizes create big fun for Energy Bingo players. A **pack of outlet insulators, tube of caulk, roll of weatherstripping, novelty pens and pencils, miniature candy bars, or % off coupons to neighborhood eateries** can make the Bingo game even more fun. And any prizes left over can be distributed at the end of the workshop as a reward for attending and learning.

At the neighborhood level, you and your neighborhood volunteers can engage local neighborhood businesses as a great way to build interest and support. Here are some ideas for how to engage local businesses:

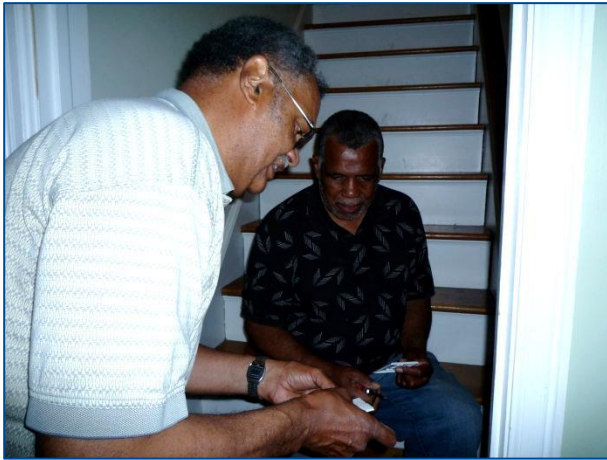
- Ask for discount coupons from neighborhood stores and restaurants that can be used as door prizes
- Seek out local hardware and merchandise stores that would be willing to sponsor a group of neighborhood workshops by providing free supplies or promoting the workshops through displays and promotional materials at their store sites or websites
- Enlist sponsoring entities that would pay for promotional items like bookmarks, door hangers, yard signs, etc. in exchange for having their logo on the items
- Ask for donations of energy upgrade supplies that can be used at the training sessions and hands-on workshops and acknowledge the donors at the workshops and in printed materials



A tabling event at a local hardware store can create interest and sign-ups for energy-saving workshops as well as additional customer traffic for the business.

3. The Pete Street® Workshops

So far, you have learned what your role is as a neighborhood leader and you now have information on how to get your neighbors as excited about the prospect of saving energy and money as you are. In this section, you will see how each of the three types of Pete Street workshops is organized so that you will be able to describe them, answer questions, and then get busy getting the word out to your neighbors.



Clockwise from left: Installing outlet insulators at a **Hands-On (HOW) Workshop**; Bike tune-up at a **Neighborhood Bike Maintenance and Safety Workshop**; Neighbors enjoying a **Basic Energy Education (BEE) Workshop**.



3.1 Basic Energy Education (BEE) Workshops

Goal of a BEE workshop:	Serve as an introduction to Pete Street® program. Teach how homes use and lose energy and how to prioritize energy upgrades. Create interest in Hands-On workshops. Connect neighbors. Have fun.
Duration:	One hour
Location:	Can be in a private home or any other community meeting space that is accessible to neighborhood residents.
# of attendees:	Up to 10 if in a home. Up to 30 if in a community room setting.
Who leads:	Anyone who has attended a previous BEE can use the <i>BEE Leader's Guide</i> and lead a BEE workshop. Any volunteer who has completed the Elite Pete® training program can also lead BEE workshops.

The Basic Energy Education (BEE) workshop is your most important tool for generating interest and excitement about your neighborhood energy-savings program. It only requires a one hour commitment and all residents who attend learn useful tips on how to save energy and money – and they always enjoy the Energy Bingo game!!

Residents can also start in with attending hands-on workshops, but the BEE workshop provides a great overview of energy use in the home.

As a neighborhood leader, you should try to schedule and conduct as many BEE workshops as possible across the neighborhood on various days and times to accommodate the various schedules of neighborhood residents.

Tip:

Try to get a few **high profile residents** (elected officials, well-known business owners, the neighborhood association leaders, etc.) to host early BEE Workshops and use those opportunities to get great publicity about the program.

The Basic Energy Education (BEE) Workshop Leader's Guide provides a fully scripted agenda and speaker's notes to make leading the workshop something everybody can do. You may need to lead the first few in your neighborhood to get the ball rolling, but once you have those first couple of workshops, neighbors who have attended should start to step up and lead additional workshops.

To get started you will need

- one copy of the *Basic Energy Education (BEE) Workshop Leader's Guide*
- one set of Bingo game cards and markers
- one Use/Lose display board
- copies of the Intro Activity cards for each attendee
- copies of the I Will Do/Teach form and Energy-Savings Checklist for attendees
- several copies of the workshop sign-in sheet



BEE attendees enjoying the icebreaker activity.

As we have said, any resident can lead a BEE workshop once they have attended one. So your task as a neighborhood leader is to start the process by leading the first few workshops and then continue to seek out additional host sites and leaders so that more and more neighbors have the opportunity to attend. You may need to help by making sure each workshop leader receives the materials listed above and then retrieving the materials for the next workshop.

More Tips for Successful BEE Workshops:

- **Think big but plan small** – meaning you should cast a wide net to promote BEE workshops but plan them in intimate settings so they have the aura of overwhelming turnout.
- **Involve multiple neighborhoods to start** – to get the energy saving buzz started you may need to join up with adjacent neighborhoods to get a critical mass of residents involved.
- **Have a sense of how many people will attend** – to ensure you have enough handouts, include an RSVP on workshop invitations and flyers. Absent other information, you should anticipate one potential attendee for every ten neighbors invited to attend.
- **Use multiple messaging options** – newsletters, flyers, blogs, door-to-door, phone trees, and word of mouth are all ways to get the message to residents enough times for them to be moved to action.
- **Eliminate as many barriers to attendance as you can** – child care, the need to plan around meal times, and avoiding established social event days and times are ways to avoid potential barriers.
- **Keep the setting informal** – arrange the room to avoid the sense of hierarchy and to encourage conversation. Look for neighbors willing to open their front porch or yard so that it becomes a very public event.
- **Treat everyone as important** - if you only have one attendee, respect their time and commitment and make it a one-on-one workshop.

3.2 Hands-On Workshops

Goal of a Hands-On Workshop:

Have participants learn 3-4 simple, do-it-yourself energy-saving projects that they can do at home. Encourage participants to teach their neighbors the projects they have learned and done. Connect neighbors. Have fun.

Duration:

One and one-half hour per workshop. Participants are encouraged to sign up for 2-3 workshops to learn the full range of DIY energy saving projects.

Location:

Preferably in a private home but can also be held in a small community room or fellowship hall where there is a kitchen and bathroom.

of attendees:

Up to 10 participants due to space limitations in most homes.

Who leads:

An Elite Pete® who has completed the 18-hour Elite Pete training program leads each Hands-On Workshop. Two Elite Pete volunteers are preferred, particularly if there are more than 5 participants.

Hands-On Workshops require a little more commitment from the host and participants. They are one and one-half hour in length and the workshop host typically provides the needed supplies (unless the community or a sponsor is providing the supplies).



An Elite Pete assists a Hands-On Workshop attendee with the installation of a low-flow showerhead.

An Elite Pete volunteer who has received extensive training will be assigned to each Hands-On Workshop by the community host agency. Your neighborhood leader role is primarily to help recruit workshop hosts and participants and field general questions about the process.

Ideally each workshop host has a group of neighbors they already know and want to invite to their workshop. The reality is that they usually only have a couple of people they want to invite and you will need to help fill out their workshop with other close-by neighbors. This may be easy if your promotional efforts have resulted in a list of interested residents, or you may have to do some one-on-one recruitment in the blocks around the host site. You should try to get at least 4 and no more than 10 people to attend each Hands-On Workshop. If more than 10 people indicate interest, schedule an additional workshop at the same or a different location.



Hands-On Workshop participants install a reusable HVAC filter.

Many of the tips for planning, recruiting and conducting a BEE workshop also apply to Hands-On Workshops. A few additional tips specific to Hands-On Workshops follows:

More Tips for Successful Hands-On Workshops:

- **Private homes work best** - Hands-On Workshops involve the participants actually doing energy saving projects. Being in a home where most of the no-cost and low-cost projects can be demonstrated works best.
- **Use BEE workshops to recruit hosts and participants** – Once people attend a BEE workshop, they are more informed about energy use and are thus more likely to want to learn how to do projects at their own home. This is the best time to recruit hosts and participants for Hands-On Workshops.
- **Go for a series** – It is best if you can find hosts and participants who will commit to a two or three workshop series. This allows the participants to learn a full range of projects since only 3-4 projects can be learned at each workshop. This also can help build community as participants get to know their neighbors better.
- **Reminders and follow-up are essential** – Everyone is busy and attending a workshop will often be down the priority list. A phone call or personal visit from the neighborhood leader, workshop host, or another participant can raise the likelihood they will attend.
- **Make the workshop visible** – Yard signs, balloons, colorful flyers, banner headlines on newsletters and websites are all ways to keep the message in front of neighborhood residents leading up to the workshop.
- **Stress the importance of doing the projects at home** – A participant who goes home and does the project at their own home that they just learned is very likely to attend a second or third workshop. All participants should be encouraged not only to do it at home but also share what they learned with other neighbors.



Attendees learn to install pipe wrap insulation in a stand-up basement during a Hands-On Workshop.

The biggest challenge with Hands-On Workshops is likely to be finding hosts willing to open their homes up to their neighbors for a workshop. The community host agency and the neighborhood should make it a priority to find incentives that can be offered to host households. Discount coupons for a local restaurant or business, movie or theater tickets, or credits on utility bills are possibilities, depending on what sponsors and partners can be lined up.

While Hands-On Workshops are designed to be held in the home, some neighborhoods may not find enough households willing to be host sites. Alternate locations that can be used include kitchens and fellowship halls of small churches and community centers, or the break room in a partner organization facility. A partner organization that renovates dilapidated homes in Durham NC volunteered vacant homes for Hands-On Workshops prior to them being sold.

Workshop Attendee Testimonial

"... The projects we did were easy and fun too. My favorite was cleaning the dust and dirt out from under our refrigerator. Our trainer Dave said that it would make our fridge so much more efficient, we'd have to raise the temperature setting. I was amazed and impressed that last night we found that our milk was frozen and we have already raised the setting. The learning was fun and interesting but maybe the coolest part was meeting and connecting with new neighbors. My neighbors are so cool and I am excited to know them better and to see them at the next workshop. I loved the workshop and can't wait for the next two!"

IBJ

Watts Hillendale Neighborhood

3.3 Bike Maintenance and Safety Workshops (Bike Clinics)

Goal of a Bike Clinic:	Improve the general health of residents as well as reduce use of auto fuel by increasing bicycle ridership. Participants learn basic bike maintenance and safely techniques.
Duration:	Bike clinics last around 2 hours depending on the number of trainers, the number of residents attending, and the types of bike maintenance needed. Bike clinics can be scheduled once or twice a year in a neighborhood, preferably during good biking weather (spring and fall).
Location:	Clinics can be held in any neighborhood location, including parks, community centers, schools, local bike shops, etc.
# of attendees:	Preferably not more than 10 -12 participants per trainer.
Who leads:	Clinics are run by residents who have completed the Bicycle Transportation Training Program (Pedal Pete™ volunteers) or by experienced bike riders, bike shop mechanics, and cyclists holding League of American Bicyclist (LAB) instructor certifications.

There are many ways to save energy and you can help your neighbors not only reduce their utility bills, but you can also help them get fit and put less gas in the gas tank by promoting more cycling and walking.

Pete Street® has a product just for this purpose – the Pedal Pete™ training program. A Pedal Pete™ is an experienced cyclist who has attended the Bicycle Transportation Trainer's Program and has made a commitment to lead bike clinics in the community. At these clinics they share their knowledge about bike maintenance and bike safety with their neighbors.



You may be a cyclist yourself, or you may already know a few neighbors who are avid cyclists. If so, then you have the perfect starting point for getting them involved as neighborhood Pedal Pete™ volunteers.

Step one is to find out if the community host agency or another organization is conducting the Bicycle Transportation Training Program or another similar program that teaches bike maintenance and safety. If there is local training, then encourage a couple of your neighborhood cyclists to enroll and make a commitment to lead some bike clinics in the neighborhood when they finish their training.

You can also look for cyclists who hold League of American Bicyclist certifications. They would also be able to run bike clinics in your neighborhood. Their website is www.bikeleague.org.

You can help facilitate neighborhood bike clinics in a number of ways, including:



- advertise bike clinics the same way as home energy workshops
- solicit giveaways to encourage attendance, such as bike lights, helmets, tire levers, tire repair kits, bumper stickers, etc.
- solicit snacks for attendees from local vendors
- sponsor bike rides around the neighborhood as a part of the bike clinic

Tip:

Did you know that bicycling develops **better balance, coordination, and strength**, while also **decreasing blood pressure, cholesterol, and obesity**?

4. Activity Ideas

One of the goals of this *Neighborhood Leader's Guide* is to give you some ideas for fun and engaging neighborhood activities for learning about saving energy. You probably volunteered to assist because you already have some of your own ideas about how to get your neighbors talking and learning about saving energy and learning from each other. That's great and you should start with those because they are likely a good fit for your neighborhood.

We've pulled together here some ideas that you may not have thought about and given you enough details that you could run these or similar activities in your neighborhood. Some may not be a good fit for your area, but others may come to mind as you review these suggestions.



4.1 CFL/LED Light Display

A portable CFL/LED light display box is easy to make and is useful for workshops, energy fairs, and any event where neighbors are gathered to learn more about energy savings. The display box plugs in and demonstrates a variety of different styles of light bulbs, such as soft white versus bright white CFLs and LEDs. Many people are not aware of the variety of CFLs and LEDs now available. In addition to being educational, the display box serves as a beacon to attract people to an information booth at any event. Detailed instructions for making such a display are in Attachment 5.



A CFL display can attract interest and curiosity to a tabling event.

4.2 Clothesline Display

A neighborhood in Durham NC sets up a clothesline display in the neighborhood park every so often, and it is a big hit. They set up several different kinds of outdoor and indoor clotheslines for a couple of hours on a Saturday or Sunday, and neighbors are attracted and come around to chat. On the outdoor style clotheslines they hang colorful towels interspersed with colorful signs explaining the many benefits of line drying. Copies of these signs are included in Attachment 6, and should be copied on legal size paper and laminated in order to be most effective. There are 8 signs with the following messages:

- Why air dry?
- Clothes last longer. Where do you think lint comes from?
- Save money. Line dry 3 loads a week and save \$50 a year.
- Safety. Clothes dryers cause 15,600 fires per year in the US.
- Hanging up clothes is physical and burns calories.
- Sunlight whitens and disinfects.
- Indoor racks can humidify in dry winter weather.
- Be a global citizen. Americans use more per year on clothes drying than Africans use for all energy needs.

They also have a document showing photos of the variety of clotheslines available on the market. A copy of this is also included as Attachment 7.

Much of the information this neighborhood gathered came from Project Laundry List at www.laundrylist.org.



4.3 Neighborhood Energy Fairs

Neighborhood energy fairs are a good way to share information and promote future neighborhood energy workshops.

One enterprising Durham NC neighborhood sets up periodic energy fairs in the neighborhood park. Neighbors share their experience with energy-efficient lighting, clotheslines, rain barrels, composting, and push mowers. They made tall signs for each booth using long 1-inch PVC pipe poles inserted into 1¼-inch short PVC pipe sections cut at an angle and embedded into the ground. Plastic signs are hung from crossbar PVC pipes connected by elbows to the poles. Plastic signs are hung from crossbar PVC pipes connected by elbows to the poles.



Energy fairs can also be incorporated into pre-existing neighborhood gatherings. Another Durham NC neighborhood set up an energy booth at an annual outdoor neighborhood event. The energy booth attracted a lot of attention by setting up clothes drying racks and having children sign pledges on paper t-shirt drawings and hanging them on the rack. The pledges say, "I promise to turn off lights when I don't need them." The children can color the t-shirts for a more festive project. A template for the t-shirt pledge is included in Attachment 8.

4.4 Get Unplugged Workshop

When conducting outreach in neighborhoods where energy conservation is a rarely discussed topic, it is best to create an action pathway that informs the community on ways to save energy but that does not overwhelm them.

In one urban community where many of the residents were low income, a workshop was set up that focused on changing one specific energy behavior. The neighborhood volunteers organized and conducted the workshop where attendees shared the strategies they were using to save energy in their homes, but the primary purpose of the workshop was to highlight how phantom energy increases energy use and to list specific strategies residents could take to decrease the amount of phantom energy they used in their home.



Residents participate in the “Get Unplugged” Workshop.

By the end of the workshop residents were identifying and discussing the phantom energy sources in their home. The attendees learned that using power strips to shut down their high tech equipment and unplugging the equipment and appliances that have an LED light indicator can help them reduce the amount of energy they use. The “Get Unplugged” workshop increased participants' awareness about a common source of wasted energy. The workshop also provided participants with an easy pathway for taking action towards reducing their energy bills.

4.5 Community Kickball

A team of college interns came up with the idea to attach the energy saving message to something that was exciting to the community, and they suggested a kickball game. Over the next few weeks, the interns presented their idea for an energy fair and kickball game to neighborhood associations and all of the neighborhoods were excited about the idea. The event was held in the gym of the neighborhood Boys and Girls Club and on the day of the kickball game, the interns set up an energy display in a narrow foyer that led to the gym and they orchestrated the sign-in activities so that all attendees would have to file in past the energy display.



Tabling exhibit in the hallway leading to the kickball event.



One of the kickball teams.

The neighborhood teams adopted energy related names (Bust-a-Therm and Kill-a-Watt), and the neighborhood recruited a volunteer DJ to provide music and enlisted a community emcee to call the play by play action of the game. Between designated innings, the emcee also quizzed the audience and players about energy saving tips and gave out energy related prizes (caulk, weather stripping, outlet insulators) donated by a local hardware store. The winners of the game received energy efficient water kits donated by the city water department.

The event was attended by community residents ranging in age from 7 – 70. The following year, neighborhood residents continued the idea and invited neighborhood police officers to partner with the community and coordinated teams that included officers and neighborhood residents. Community residents manned energy display tables and talked to their neighbors about saving energy in their homes.

4.6 Block Transformers

Block captains, or “Block Transformers,” can make a difference in the spread of energy information in a neighborhood. All it takes is enthusiasm and a small amount of time. Below are some suggested activities for Block Transformers to do on their block:

- Host a Basic Energy Education Workshop and/or a Hands-On Workshop for neighbors and then follow up to encourage each attendee to become an Energy Pete™ and then an Energy Re-Pete™.



A neighborhood block transformer demonstrates to her neighbors how to use a power cost monitor.

- Learn how to use a Power Cost Monitor and do a demonstration for neighbors on the block. A Power Cost Monitor costs around \$100, easily attaches to the utility meter, and shows how much electricity the entire home is using at any one moment. By turning on the dryer or fans or lights, it demonstrates the cost of these items.
- Get neighbors to commit to tracking and comparing their monthly household energy use to others on the block. One of the online energy comparison tools now available can be used to help track your energy use.
- Compete with neighbors on other blocks to document the most energy saving activity through Pete Street®.

4.7 Hop, Sip, and Ride

Many people would ride the bus more often if they would just take the initial step of doing it once. Nobody wants to feel awkward boarding the bus! How much is it? Do they give change? Where do you put your money? How do you do a round trip? How do you signal that you want to get off?

To help people feel more comfortable riding the bus from convenient neighborhood bus stops, a neighborhood can organize a group bus trip such as a “Hop Sip & Ride.” Advertise through the neighborhood listserv and/or flyers that neighbors will get together at a specific bus stop at a specific time to ride the bus to a particular location for a round of drinks together and then return by a specific time on the bus. Include some details about how much the bus costs and some engaging language about getting to know your neighbors and the bus system at the same time. Then enjoy!



Neighborhood Hop Sip & Ride

A group of neighbors in the Durham NC neighborhood of Old West Durham organized a neighborhood Hop Sip and Ride on a summer's evening. A dozen neighbors met at a bus stop in the neighborhood, conveniently located next to a popular popsicle shop where some of the folks started with a sugary treat. After boarding the bus, they rode to a downtown restaurant for food, drink, and neighborly conversation. As they headed back, they talked about how they could tell more of their neighbors how convenient it is to take the bus.

4.8 Solar Rooftop Surveys

Solar water heating can be an affordable investment for many homeowners, as it saves on energy costs and adds to the resale value of the home. Installing solar hot water is also good for the local economy, as it creates jobs for installers.

Water heating is typically 13% of a home's energy bills, and a solar thermal system will reduce this by 70%. For a home that pays \$2,000 per year on energy bills, this saves \$180 per year.

To bring the benefits of solar water heating to the attention of homeowners, neighborhood energy groups can undertake a visual survey of homes in their neighborhood, identifying which are appropriate for solar, and can then leaflet these homes with information.

This is an excellent project for vendor collaboration. The community can enlist several vendors of solar hot water systems to jointly fund the printing of leaflets for distribution and to become sponsors of the community's neighbor-to-neighbor program.

In Durham NC, Clean Energy Durham enlisted three local solar hot water vendors to jointly pay for brochures that explained the value of solar hot water and listed their contact information. The brochures were also designed to include a \$200 off coupon that expired after a set period of time. Neighborhood leaders trained neighborhood volunteers how to identify solar-appropriate rooftops. The volunteers used a kit that included a clipboard, forms, and a compass to record the level of solar appropriateness of every house in a designated territory. They then dropped off the brochures at the appropriate houses.



Using kit to identify solar-appropriate rooftops.



Kit used by neighborhood volunteers to identify houses in their neighborhood that were appropriate for solar hot water.

The solar rooftop kits included the following:

1. a Sunto A-10 compass on a lanyard for determining North and South;
2. a clipboard and pen;
3. a set of instructions;
4. a diagram showing allowable and not allowable tree shading;
5. spreadsheets for entering addresses and designations for each house;
6. solar hot water brochures for distribution.

Copies of items #3 through #6 are included in Attachment 9. Also included in Attachment 9 is a template for making customized labels (using Avery #5163 labels) to stick onto each brochure for each neighborhood's offer of a \$200 discount.

5. Keeping the Momentum Going

Now that you have had a successful launch of your neighbor-to-neighbor energy savings program, you and your neighborhood leaders have the challenge to encourage more and more of your residents to get involved and continue to spread the learning.

The following ideas showcase your dedicated volunteers, participants, and supporters.

5.1 Testimonials

Throughout this *Guide*, you have seen actual testimonial examples from residents who have hosted or attended BEE or Hands-On Workshops. Testimonials are an opportunity to share with the neighborhood stories from their neighbors who have already participated and are enjoying the energy savings, health, and comfort benefits.

Not everyone who hosts or participates in a workshop will want to provide a testimonial, but you will want to make sure to provide the opportunity for everyone who does participate to tell their story. You will get valuable feedback about the program as well as some compelling stories that will help sell the program to other neighbors.

Testimonials can be used in flyers, newsletters, websites, blogs – even on signage about the program. Check with the community host agency as they may be able to supply you with writing, layout, and printing assistance.

Workshop Participant and Leader Testimonial:

Gloria H. from Durham NC attended a Basic Energy Education (BEE) workshop and was so inspired that she got a copy of the BEE Leaders' Guide and taught two workshops herself. She trained 30 other neighbors! Why was she inspired to do this? Here is what she said: "Because of the workshop, I would say I saved every bit of \$80-\$100 a month! I switched the light bulbs, cleaned under the refrigerator, unplug things when I'm not using them and do all the other things I learned. I went on to teach my daughter and some of my neighbors, so they could save, too. I use the money I'm saving to pay off some other bills. And I also get to spend it on some things I desire. I have 13 grandchildren and Christmas is coming, so this is a big help! I see my daughter's bills, too and I can tell you, she is also saving money."

5.2 Visual Reminders

Visual reminders help by their repetitive nature. These can include:

- yard signs indicating a household that has changed their energy use behavior or is holding a workshop
- door hanger reminders distributed door-to-door
- buttons, stickers, bookmarks, and fridge magnets that can be available at all neighborhood gatherings
- a neighborhood sign at a high visibility site showing % that has been reached of the goal for number of participating households
- reminders in newsletters and websites



Tip:

If you know how, place a **QR code on signs and flyers** that links to additional information about upcoming workshops and how to sign up to attend or host a future workshop.

5.3 Celebrate Successes

You can create a lot of goodwill for the program and continuing commitments from volunteers and participants with simple gestures of appreciation. These might include:

- a personal phone call or email thank you for a job well done
- making volunteer recognition a regular part of each neighborhood gathering or monthly meeting
- a hand-written thank you for particularly noteworthy commitments, such as residents that host a BEE workshop, residents that complete the Elite Pete® training program, or residents that reach certain milestones of energy savings or neighbor education
- spotlighting volunteer efforts in monthly newsletters or list serve message boards
- highlighting the accomplishments of volunteers on neighborhood social media sites (see a couple of examples on the next page)
- sending a short note of appreciation to a volunteer's work supervisor if the volunteer had to take time off to plan or conduct the event
- treating a volunteer team to a movie night or an ice cream social for a team accomplishment
- organizing a neighborhood-wide event to celebrate a major milestone achievement
- forwarding short stories about accomplishments to community bulletin boards

Blog posting examples:

Ms. Mary Odom's Energy Blessing



Ms. Mary Odom heard about the Neighborhood Energy Retrofit Program (NERP) from her neighbor, but she didn't qualify for the program because she had a gas heater that she used for emergencies and she wanted to keep it. Ms. Odom had a Hands-On Workshop in her home where volunteers demonstrated several low-cost and no-cost energy-saving techniques. Ms. Odom requested her free compact fluorescent light bulbs from Duke Energy and she made sure to turn off all of her lights and unplug her appliances when she wasn't using them. Ms. Odom told Clean Energy Durham,

"The energy program is a blessing because when I got the information about this extra savings strategy that's how I realized the savings. It was good to talk about the [power] strips because I did not know about that, and I did not know that I was supposed to clean the refrigerator coils or the dryer vent. It was good to learn all of that and after a while, you become conscious of it. This month I used 674 kWh and last year I used 752 kWh during the same month. My average energy bill was usually \$150-200 month in the summertime and last month it was \$61.83. Since I made the low-cost repairs, my bill has not been more than \$90. You see how it changed, don't you? By changing my habits and applying the no-cost techniques on how to save energy, that has helped me a lot. Even in the hottest months I did not go to \$100. To me that was a blessing. It gives me extra money to do something else with—I bought a camera last time."

Making Big Changes in Lakewood Park

A Lakewood Park couple, Laura and Todd, recently attended a Clean Energy Durham Workshop in Southwest Central Durham. After the workshop they really got down to business applying the things they learned in the workshop to their own home. This is what they've done so far:

- installed insulators in all outdoor wall outlets
- installed weather stripping on their doors
- insulated pipes
- wrapped their hot water heater
- cleaned under their refrigerator
- cleaned the dryer vents
- bought, installed, and are now using a programmable thermostat
- changed all their light bulbs to CFLs
- put their TV on a power strip
- put a watering can under their air conditioning unit to use the excess water on plants
- are now using a rain barrel.

Laura and Todd were so excited about what they learned that they have begun sharing this information with their neighbors. What a great example of neighbors helping neighbors save energy.

Stay tuned for another blog down the road about how much Laura and Todd are actually saving!

5.4 Recognize Sponsors

You and your neighborhood leaders may have gone out and recruited support from neighborhood businesses, other organizations, or individuals within your neighborhood or elsewhere in the community. It is important to recognize their contributions as often as possible because you want them to be recognized for their support and you want them to continue to be interested and engaged in your effort.

Here is a short list of some of the ways to show your appreciation to your sponsors.

- include spotlight messages on websites, newsletters, blogs, etc. identifying a sponsor's contribution with short descriptions about the sponsor and how they came to be interested in the energy savings program or your particular neighborhood
- place sponsor links on your neighborhood website, listserv, etc.
- provide personalized invitations for sponsors to attend neighborhood events
- provide time for sponsors to give short updates during neighborhood meetings and events
- include sponsor logos or names on program materials, signs, etc.

“One cannot lead a life that is truly excellent without feeling that one belongs to something greater and more permanent than oneself.”

Drive, Daniel H. Pink, quoting Mihaly C.

6. Tracking Results

Good news! You have now started in your neighborhood one of the most unique energy education and money savings programs to be found anywhere! Your neighbors who have participated are now saving real dollars on their utility bills and are probably experiencing more comfortable living in their own homes. You should feel proud to have taken a leadership role in making this volunteer-led program happen in your neighborhood as a part of the community's overall energy efficiency program.



Neighbors enjoying an energy savings workshop in a home.

More good news is that most of the responsibility of tracking the results of the program rests with the community host agency. They will be sending out a survey to all participants around two weeks after each participant attends a BEE or HOW workshop. A copy of the survey is included in Attachment 10 so you can see what questions are being asked. This survey is usually sent out via an online Survey Monkey message. For those workshop attendees who choose not to complete the online survey, follow-up phone calls are made by the community host agency.

As we've said earlier, the best energy savings information you can pass on to your neighbors is testimonials from actual participants who have seen their energy bills go down as a result of what they learned. But you will also want to know something about how the program is going and what is being achieved. It is likely you will be asked questions about how effective the program is, how

much energy or money one would expect to save if they attend a workshop and do some projects at home, how many of their neighbors have actually participated, and which of their neighbors may be able to help them with a particular energy saving project. It is therefore important to have one or several people in the neighborhood who can help answer those questions.

6.1 Energy Savings Estimates

The amount of energy and money that each household will save as a result of participating in this unique program will depend on a number of things, including:

- the size, age, and efficiency of the home and its systems and appliances
- whether the household has done any previous energy efficiency upgrades
- which energy saving projects the household completes after attending a workshop
- whether the household changes other energy use behaviors after attending a workshop

What you can say regardless of the above is that residents who attend these energy saving workshops typically save a lot of energy and money as evidenced by the study referred to here.

Evidence of Energy Savings:

A recent analysis of utility bill information by the UNC Environmental Finance Center of a similar neighbor-to-neighbor energy savings education program for Halifax Electric Membership Corporation customers in Warren County, NC found that, comparing a cold winter and the next year's warmer winter, **households that attended a Hands-On Workshop reduced their electricity use by an average of 17.5% more than those who did not attend a workshop.**

Date source:

Community Conservation: A preliminary evaluation of Clean Energy Durham's neighborhood energy efficiency workshops. 2012. UNC Environmental Finance Center.

6.2 Using the Energy Savings Calculator

One tool that has been developed to help households decide what energy savings projects they would like to do at their own home is the Hands-On Workshop Calculator. A sample of the Calculator is included as Attachment 11.

The Hands-On Workshop Calculator provides a listing of all 17 projects that are taught at Hands-On Workshops, the average estimated energy savings of each project, the cost of supplies or equipment for completing each project, and the average number of months it takes to pay back the cost (when the total amount of energy bill savings would surpass the amount spent).

This form is typically used by the Elite Pete® when he or she is talking with a Hands-On Workshop host during the planning of a workshop. However, this is also an informative reference document that can be handed out to any resident that wants to do some projects at their own home and would like some information about how much energy they may save. You can ask the community host agency to provide you with copies of this Calculator to hand out at meetings and workshops.

6.3 Other Handouts

There are several other handouts that may be helpful to you as you talk with your other leaders and neighbors. These are described below and should also be available from the community host agency.

- **Energy Savings Checklist** – This 2-page checklist (see Attachment 12) is handed out at all BEE workshops but is also a good energy savings primer that can be provided at other meetings and neighborhood events. The Checklist provides more than 50 no-cost and low-cost energy savings tips.
- **Additional Resources** – This document (see Attachment 13) provides a listing of federal, state and local resources that your neighbors can refer to for more information and financial assistance if they are interested in doing additional energy saving projects around their home, including hiring contractors for larger scale projects. The community host agency maintains and updates this listing periodically.

“Energy Bingo was fun. It was a lot better than being lectured to. It was kind of goofy, but it was fun. People were laughing during the game, but they were also learning.”

Chris D.

Lochaven Hill Neighborhood, Durham NC

Neighborhood Leader's Guide

Attachments

1. Sample Basic Energy Education (BEE) Workshop Flyer
2. Sample Hands-On Workshop Flyer
3. Sample Participant Recruitment Flyer
4. Door Hanger Template
5. Instruction for Building a CFL/LED Light Display
6. Clothesline Displays
7. Types of Clotheslines Displays
8. T-shirt Pledge Template
9. Solar Rooftop Survey Templates
10. Workshop Follow Up Survey
11. Hands-On Workshop Calculator
12. Energy Savings Checklist
13. Additional Resources Sheet



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Attachment 1

Sample Basic Energy Education (BEE) Workshop Flyer

YOU'RE INVITED: FREE HOME ENERGY SAVINGS WORKSHOP



LOWER YOUR ENERGY BILLS!

You're invited to a **FREE** one-hour workshop at which you and your neighbors will learn simple, low-cost and no-cost ways to save money on your home energy bill and have a little **FUN** in the process.

"I saved \$80 to \$100 a month from what I learned at this workshop!"

When:

Where:

For more information call [insert name]
at [insert phone]
or [insert email]

SPONSORS:

Community Host Agency Logo

Partner logos

© Clean Energy Durham 2012

Attachment 2

Sample Hands-On Workshop Flyer

YOU'RE INVITED: FREE HOME ENERGY SAVINGS WORKSHOP



FOR RESIDENTS OF
[neighborhood/community/utility]

Come to this FREE 1½-hour workshop and you
and your neighbors will...

LEARN easy energy saving projects

PRACTICE doing projects

USE free supplies

SAVE money on your energy bills

When:

Where:

**"This
workshop
was FUN and
I learned a
lot!"**

To sign up or get more information call [insert name]

at [insert phone]

or [insert email]

SPONSORS:

Community Host Agency Logo

Partner logos

© Clean Energy Durham 2012

Attachment 3

Sample Participant Recruitment Flyer

FREE home energy saving workshops!

Learn how to SAVE MONEY!

[Neighborhood] is offering **FREE** home energy saving workshops to its residents. You will learn (1) how household energy is typically used and wasted, (2) **no-cost and low-cost** ways to reduce home energy bills, and (3) **easy** do-it-yourself energy saving projects. Workshop attendees will get coupons for **discounts and rebates** on energy-saving supplies (caulk, for example) at participating local hardware stores and also **door prizes!**

Workshops will be taught for groups of neighbors, typically in one neighbor's home and are designed to be fun as well as educational. Workshops are being scheduled now through [Date].

CALL NOW to sign up for a workshop near you! Save money this winter!

Call [neighborhood coordinator name and phone] or Email [neighborhood coordinator email].

FREE home energy saving workshops!

Learn how to SAVE MONEY!

[Neighborhood] is offering **FREE** home energy saving workshops to its residents. You will learn (1) how household energy is typically used and wasted, (2) **no-cost and low-cost** ways to reduce home energy bills, and (3) **easy** do-it-yourself energy saving projects. Workshop attendees will get coupons for **discounts and rebates** on energy-saving supplies (caulk, for example) at participating local hardware stores and also **door prizes!**

Workshops will be taught for groups of neighbors, typically in one neighbor's home and are designed to be fun as well as educational. Workshops are being scheduled now through [Date].

CALL NOW to sign up for a workshop near you! Save money this winter!

Call [neighborhood coordinator name and phone] or Email [neighborhood coordinator email].

FREE home energy saving workshops!

Learn how to SAVE MONEY!

[Neighborhood] is offering **FREE** home energy saving workshops to its residents. You will learn (1) how household energy is typically used and wasted, (2) **no-cost and low-cost** ways to reduce home energy bills, and (3) **easy** do-it-yourself energy saving projects. Workshop attendees will get coupons for **discounts and rebates** on energy-saving supplies (caulk, for example) at participating local hardware stores and also **door prizes!**

Workshops will be taught for groups of neighbors, typically in one neighbor's home and are designed to be fun as well as educational. Workshops are being scheduled now through [Date].

CALL NOW to sign up for a workshop near you! Save money this winter!

Call [neighborhood coordinator name and phone] or Email [neighborhood coordinator email].

Attachment 4

Door Hanger Template

Neighborhood logo here

Cut along dotted
lines

**Want to learn
how to save
money?
We can show you
how!**

**Let us show you how
to save money each
month on your utility
bill. Call 123-4567 or
email [xx@xx.xx] for
more information.**

Sponsor logo here

Neighborhood logo here

Cut along dotted
lines

**Want to learn
how to save
money?
We can show you
how!**

**Let us show you how
to save money each
month on your utility
bill. Call 123-4567 or
email [xx@xx.xx] for
more information.**

Sponsor logo here

Attachment 5

Instructions for Building a CFL/LED Light Display

CFL/LED Light Display

A portable CFL/LED light display box is easy to make and is useful for workshops, energy fairs, and any event where neighbors are gathered to learn more about energy savings. The display box plugs in and demonstrates a variety of different styles of light bulbs, such as soft white versus bright white CFLs. In addition to being educational, the display box serves as a beacon to attract people to an information booth at any event. Directions for making such a display are below.

You will need these materials:

- 1 quarter-sheet (2'x4') of $\frac{3}{4}$ " thickness stain- or paint-grade plywood
- 1 eighth-sheet (2'x2') of $\frac{1}{4}$ " thickness plywood
- 1 "old work" or "cut-in" wiring box, 18 cubic inches, minimum
- 2 "old work" or "cut-in" 3-gang wiring boxes, 42 cubic inches, minimum
- 1 GFCI outlet with cover plate
- 1 single-pole dimmer switch
- 5 single-pole switches
- 2 3-gang switch cover plates
- 6 ceramic light sockets
- Approximately 10' of gauge 14-2 wire
- Approximately 10' of gauge 16 extension cord with male end
- A handful of wire connectors
- 1 wiring clamp
- Electrical tape
- 6 x $1\frac{3}{4}$ " pan head wood screws
- 6 x $\frac{3}{4}$ " pan head wood screws
- Wood glue
- Latex paint or water-based clear wood finish
- Handles



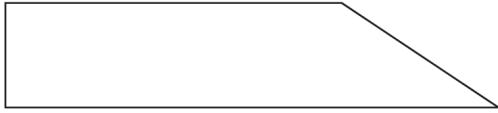
A CFL display at a local hardware store tabling event

You will need these tools:

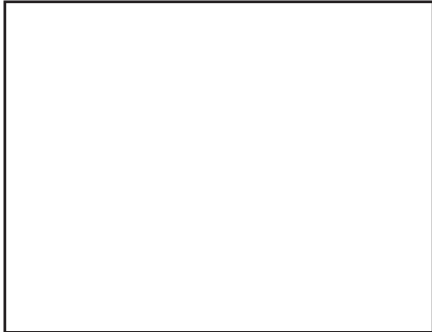
- | | |
|-----------------------|------------------------|
| • Table saw | • Wire cutter/stripper |
| • Miter saw | • Measuring tape |
| • Jigsaw | • Pencil |
| • Drill | • Paint brush |
| • Assorted drill bits | • Label-maker |
| • Screwdrivers | |

Make a box using the plywood, glue, and screws. Aim for a finished size of 6" high x 23" square. The $\frac{1}{4}$ " plywood is for the bottom of the box. Do not glue this piece. The bottom of the box will be removable for the purpose of wiring and servicing the lights, switches, and outlet. You will be making six pieces for the box:

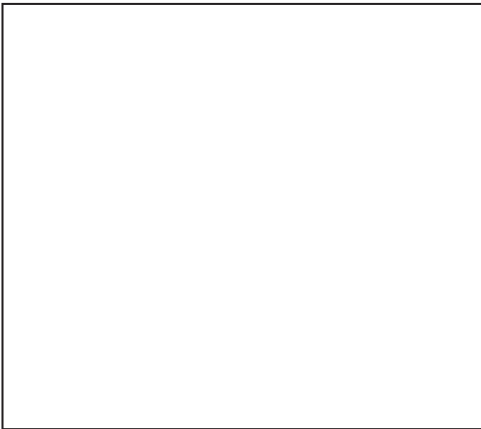
CFL/LED Light Display Plywood Cutting Instructions



Two $\frac{3}{4}$ " plywood shapes that look like the top drawing for the two sides, with a length of $15\frac{1}{2}$ " on top and $20\frac{1}{2}$ " in bottom, a straight rear width of 5", and a sloping front width of 7".



One $\frac{3}{4}$ " plywood shape that looks like the middle drawing for the top of the box, with dimensions of $15\frac{1}{2}$ " x 19". The long sides of this piece are the two sides of the box and the short sides are the front and back of the box.



Two $\frac{3}{4}$ " plywood rectangles (not pictured): one $4\frac{1}{2}$ " x $18\frac{5}{8}$ " for the back, and one 7" x $18\frac{3}{4}$ " for the front.

One $\frac{1}{4}$ " plywood rectangle 20" x $20\frac{1}{2}$ " for the bottom of the box. See bottom drawing. The short sides are at the front and back of the box and the long sides are at the sides of the box.

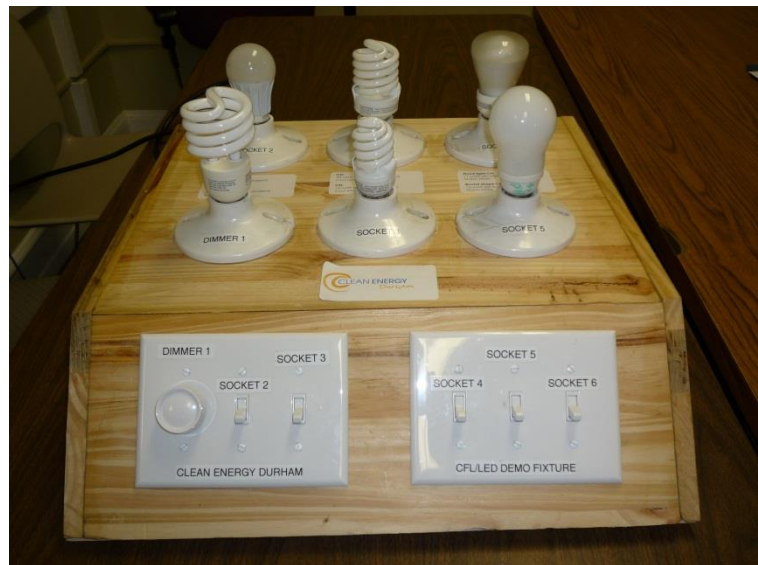
In the top of the box, cut six 3" diameter openings for the ceramic light sockets. Space them 6" on center. In the front of the box, cut two openings of appropriate size, one for each of the two 3-gang wiring boxes. These boxes are for the switches. In the back of the box, cut one opening of appropriate size for the remaining wiring box – this is for the GFCI outlet - and one hole of appropriate size for the wiring clamp.

Finish the box with latex paint or water-based clear wood finish.

Attach the ceramic light sockets, the wiring boxes, and the wiring clamp to the plywood box. Run the extension cord through the wiring clamp and then into the GFCI wiring box. Tighten the wiring clamp. Wire the extension cord to the GFCI outlet according to the manufacturer's instructions. The GFCI outlet wiring box will serve as the junction box for wiring the lights and switches. The GFCI outlet is the first appliance in the circuit, followed by the switches and the lights. Using the gauge 14-2 wire and the wire connectors, wire the switches and the lights to the GFCI outlet in the normal fashion, in parallel, one switch for each light. Install the GFCI outlet and the switches in their respective wiring boxes. Secure all wires as necessary. Install the cover plates.

Label the switches and the lights:

- LED 8 watt warm white
- CFL 11 watt warm white
- CFL 13 watt cool white
- CFL 15 watt warm white
- CFL 23 watt cool white
- Dimmable CFL 24 watt warm white



Install the handles on the sides of the box.

Install the bottom of the box using the 6 x $\frac{3}{4}$ " screws

The finished box will look like the photo above before painting.

Attachment 6

Clothesline Displays

The following clothesline templates are available in electronic format for printing. You should print them on legal size paper and laminate them so they can be hung from clotheslines at your event and reused at future events.

Clothes last longer

Where do you think lint comes from?

© Clean Energy Durham 2012

Be a better global citizen



Americans use more per year on clothes drying than Africans use for all energy needs

© Clean Energy Durham 2012

Hanging up clothes is physical and burns calories

© Clean Energy Durham 2012

Indoor racks can humidify in dry winter weather

© Clean Energy Durham 2012

Safety

Clothes dryers
cause 15,600
fires per year in
the US

© Clean Energy Durham 2012

WHY AIR DRY?



© Clean Energy Durham 2012

Sunlight
bleaches
and
disinfects



© Clean Energy Durham 2012

Save money

Line dry 3
loads a week
and save \$50 a
year

© Clean Energy Durham 2012



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Attachment 7

Types of Clotheslines Displays

These displays are available in electronic format and can be printed on letter size paper and laminated for display during a clothesline display event.

Let It All Hang Out

INDOOR CHOICES



Stand alone



Wall mounted



Retractable



Ceiling mounted

© Clean Energy Durham 2012

OUTDOOR CHOICES

Simple line



Retractable



Stand alone



Pulleys



Umbrella

© Clean Energy Durham 2012

Attachment 8

T-Shirt Pledge Template

This t-shirt pledge template is available in electronic format and can be printed on letter size paper to be signed by neighborhood children and then hung on clothes drying racks. Have some crayons available so the children can color the t-shirts for a more festive project.



Attachment 9

Solar Rooftop Survey Templates

Solar Rooftop Project Instructions

Your Kit

Your kit should include a clipboard, compass, pen, Data Sheets, Shade Tree Diagram, solar hot water brochures, label template, two articles about solar hot water, and these Instructions.

Background

The typical residential solar water heating system involves two 4 x 8 foot panels mounted on the rooftop in a location that gets a lot of sunshine during the day. Since the sun travels from the East to the West through the Southern sky during a day, a roof that faces due South is going to be perfect for solar. That being said, a house with a roof facing West or East can also have solar, because solar receptacles can be mounted on West or East faces and angled toward the South. The only roof space that we can definitively rule out is one that is facing North. This roof will never see the direct rays of the sun, and therefore would not be good for solar. If you are interested in learning more about solar hot water, refer to the articles included in your kit.

Learn to use your compass to determine where South is for every street you evaluate. Instructions are included with the compass. Note that it has a lanyard so that you can easily carry it around your neck.

In addition to the direction of the rooftop, potential shading must be evaluated. Sometimes parts of the house, such as dormers and chimneys, can provide shade. Often the shade comes from trees. In the winter, the sun is low in the sky, and a tree will provide too much shade in the winter if it is taller than 30 degrees higher than a straight line out from the rooftop where the panels would be. See the Shade Tree Diagram for an illustration of this principle. Note that a tree with leaves that fall off in the winter won't be as much of a shade problem as an evergreen.

Note that you will not always be able to tell exactly which trees are going to be problem trees. We also can't go into people's backyards to fully assess solar potential. Don't worry about this. The best we can do is give an approximate estimate of the amount of shade certain trees give off. Usually you can tell this by noticing how close the tree is to the part of the roof that would be good for solar, and how far its branches stretch out.

The best time of the day to evaluate shading is between 11 a.m. and 4 p.m., so this is a good time to walk each block and fill out the Data Sheets.

The information you record will be used for providing information on solar hot water to households whose homes may be candidates for solar.

How to Fill in the Data Sheet

A) **Street/Block Description.** In this cell, list the house numbers in the block that you are evaluating. For example, if the block runs from house number 1000 to 1100, then write "1000-1100 Burch Ave." Or you could write "1000 block of Burch Ave." You should only do one block per page, which is why the "Block Description" is at the top of the sheet.

B) **Evaluator Name & Email.** Your name and email.

C) **Address.** Address of the house being evaluated.

D) **Front Faces (N/E/W/S).** This is the direction that the front of the house faces. All you have to write is N for North, E for East, etc. If it is between two directions, choose the closest direction. If your compass shows that it is EXACTLY Southeast or Southwest, then write S. If your compass shows that it is EXACTLY Northeast or Northwest, then write N.

E) **Shade to South (Much/Some/None).** Use your own judgment to decide how much shade is on the South face of the roof. See the Background information above regarding trees and other shading. A house with "Much" shade is not going to be good for solar. A house with "Some" shade might be good for solar. A house with "None" is going to be perfect for solar. If a house is difficult to assess, it will probably be designated as "Some" shade.

F) **Shade to East (Much/Some/None).** See above.

G) **Shade to West (Much/Some/None).** See above.

H) **Rental/Duplex? (Y/N).** If you can tell that the house is a rental or a duplex (for rent sign visible, or two street addresses on one building) then take note of this by writing Y for Yes. Otherwise, write N for No.

I) **Non-residential? (Y/N).** If the building is non-residential, then write Y for Yes. Otherwise, write N for No.

J) **Already Solar? (Y/N).** If you can see that a house already has solar receptacles or panels, then write Y for Yes. Otherwise, write N for No. Of course, a house could have a solar receptacle on its roof in the backyard and you would not be able to tell, but we're doing what we can from the street.

K) **Comments.** If there are any special notes you want to make about a house, here is the place to put them. If the roof is flat, note it here. Also note here if the house is way away from the street and not visible and you cannot otherwise determine anything about the rooftop. Anything else you can think of that would be important to note can go here.

L) **Conclusion (N/M/Y/Y-B/Y-A).** This is where you will record whether or not the house would be good for solar. Choose one of 5 of the following conclusion categories for the house:

N means No. Solar would not be appropriate because there is Much shade South.

Y means Yes. Solar would be good here because the shade to the South is None AND the front of the house does NOT face South.

Y-B means Yes, But. Solar would be good here because the shade to the South is None BUT the South facing roof is on the front of the house. This might be a turn-off to some folks.

Y-A means Yes, Already Has Solar. If you see solar panels, then use this category.

M means Maybe. Everything else would go in this category.

Data Follow-up

Once you have finished filling out the Data Sheets by hand, use the downloaded Excel version on your computer to copy your information into electronic form and email it to [fill in the blank].

If you find that there are certain houses that are difficult to assess, then you might want to use Google Maps as a resource. You can type in the address of the house that is giving you trouble, and it will give you an aerial photo of the block, from which you should be able to pick out the house in question (and zoom in on it). Using Google Maps can be helpful if you can't tell how much shade is going to be in someone's back yard because the aerial photos allow you to see all of the trees surrounding the house.

Additional Data Sheets can be printed from your electronic version as needed.

Leafletting

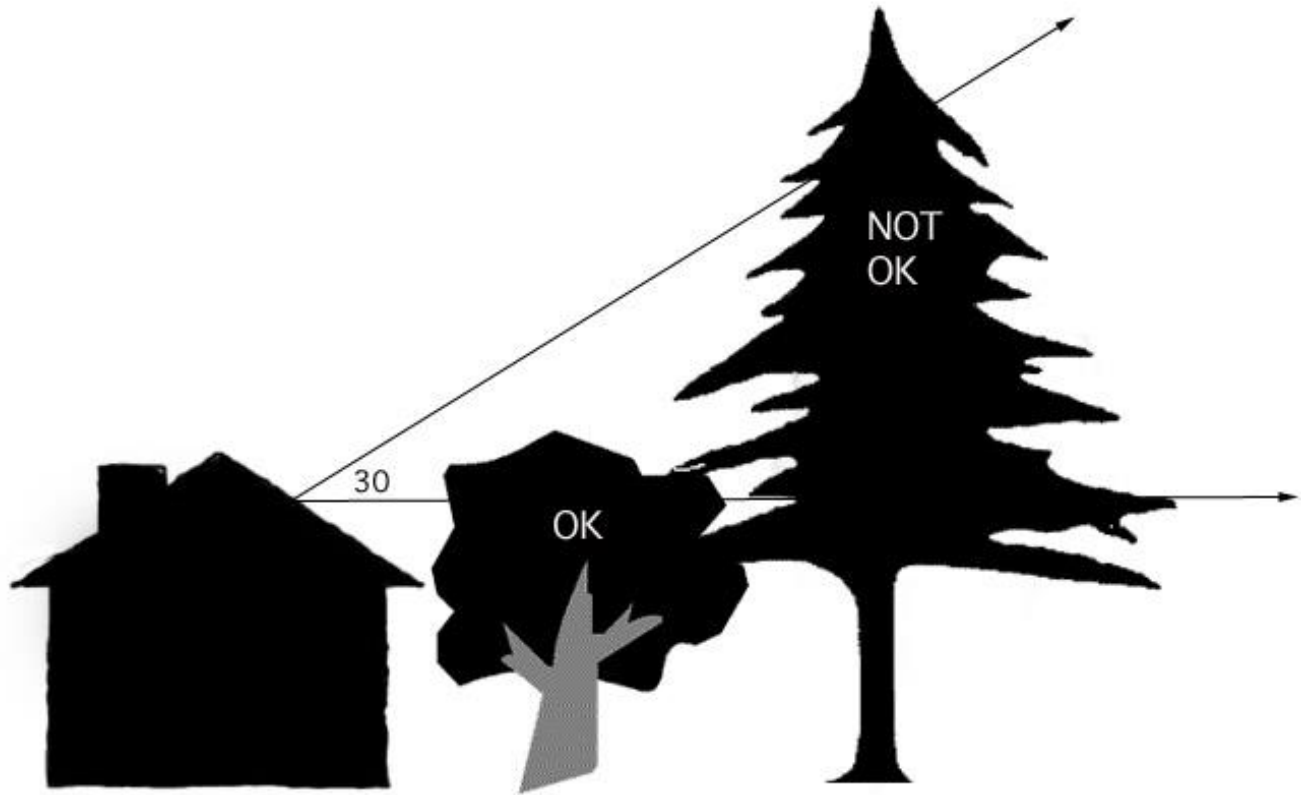
Once you have sent in your electronic data, [fill in name] will arrange to get you leaflets and labels for leafletting the houses that were categorized Y or Y-B. The labels are to be used by you to identify the leaflets as coming from your neighborhood association and to offer the homeowners a discount. Note that the discount expires 90 days from when you leaflet, so choose one particular week to complete all the leafletting.

Questions?

If you have any questions, contact [fill in name and contact information].

**THANK YOU FOR YOUR VALUABLE CONTRIBUTION TO ENERGY
CONSERVATION AND RENEWABLE ENERGY IN OUR COMMUNITY!**

Clean Energy Durham Solar Rooftops Project Shade Tree Diagram



Is the tree taller than 30 degrees up from a straight line out from the rooftop area where a panel would be placed?

If so, it would create too much shade.

Solar Rooftops Project Data Sheet									
Street/Block Description:		Evaluator Name & E-mail:							
Address	Front Faces (N/E/W/S)	Shade to South (Much/Some / None)	Shade to East (Much/Some/ None)	Shade to West (Much/Some/ None)	Rental/Duplex? (Y/N)	Non-residential? (Y/N)	Already Solar? (Y/N)	Comments	Conclusion (N or M or Y or Y-B or Y-A)

Solar Rooftops Project Data Sheet									
Street/Block Description:		Evaluator Name & E-mail:							
Address	Front Faces (N/E/W/S)	Shade to South (Much/Some / None)	Shade to East (Much/Some/ None)	Shade to West (Much/Some/ None)	Rental/Duplex? (Y/N)	Non-residential? (Y/N)	Already Solar? (Y/N)	Comments	Conclusion (N or M or Y or Y-B or Y-A)

Sample of a solar hot water program brochure used in Durham NC.

Clean Energy Durham can help you


Learn to weatherize. We're training people to make their homes more secure against cold and heat so that energy bills are lower. We're encouraging neighbors to help each other with weatherization. We're also connecting volunteers with local groups that help weatherize low-income households.

Switch to solar hot water. We're identifying rooftops suitable for solar installations, distributing information explaining solar hot water systems, and connecting potential customers with local installation companies.

Change lightbulbs. We're buying compact fluorescent lightbulbs in bulk to save money, and we're sharing the cost with friends and neighbors. We're helping folks who can't afford the extra up-front cost by collecting donations and distributing free lightbulbs to low-income households.

Buy energy-efficient appliances. We're learning which appliances save the most energy by visiting the Energy Star website at www.energystar.gov.

Start a group. We're starting energy-saving groups and committees in neighborhoods, congregations, and other organizations. Clean Energy Durham supports these groups by giving presentations and connecting them with resources and each other.




connecting each of us
to a healthier community
and a healthier climate

Clean Energy Durham is a volunteer organization working to promote energy efficiency and the use of renewable energy throughout Durham County. We focus primarily on energy use in buildings because buildings are the single largest users of energy in Durham.


We warmly welcome new faces at our monthly meetings on the 2nd Monday of each month at 5:30 p.m. at the Durham County Cooperative Extension offices at 721 Foster Street. For more information, call 919-560-0521 or visit our website:

www.cleanenergydurham.org




Solar Hot Water At MY House?

YES! For lots of reasons...




Benefits of solar hot water




Save money.

Hot water is responsible for 13% of the typical household's energy bills. Solar hot water typically saves \$6 per person per month.




Add home value.

The property value of a home is increased by \$2,800 or more by installing a solar hot water system, according to a 1996 Appraisal Journal article.




Create jobs.

Every 100 solar hot water installations per year creates full-time work for three people. Crew member jobs pay well and do not require a high school diploma.



Reduce greenhouse gas.

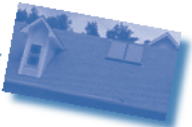
By switching from electric to solar hot water, a typical household reduces its greenhouse gas emissions by an amount equal to driving a car 7,000 fewer miles each year.



Do the right thing.

Our actions will affect all our children, but the effects of global warming and pollution hurt the poorest people the most, whether they live in Durham or elsewhere.

The change to your home's exterior is minimal. The solar panels look like skylights.



All you need

A rooftop not usually shaded and facing roughly toward the south.

How it works

The most common solar hot water heating system consists of two 4 x 8 foot flat panels on the roof facing generally south. The panels contain pipes filled with a liquid that heats up when the sun shines. A pump circulates the heated liquid through coils around an 80-gallon hot water tank in the basement or other convenient location. When the sun does not shine for awhile, a back-up heater in the tank automatically kicks in to keep a consistent supply of hot water. A typical system will provide 70% of hot water from free solar energy and 30% from back-up. The panels have a lifetime of well over 20 years and can be temporarily removed if re-roofing is necessary. Maintenance is minimal and does NOT require homeowners to go on the roof.

Estimated cost

Equipment and labor:	\$5,400
Minus state and federal government tax credits:	-\$2,700
Net cost to homeowner:	\$2,700

For tax credit information, see www.nasa.nasa.gov/Information_resources/foat_sheets.cfm

Get a quote

Please contact a local solar installer for a free quote:


Honey Electric Solar, Inc.
(336) 435-9786
www.honeyelectricsolar.com

Solar Consultants, Inc.
(919) 831-5304
www.solarconsultants.com

Southern Energy Management
(919) 836-0330
www.southern-energy.com


Clean Energy Durham wants to connect with YOU!

www.cleanenergydurham.org



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Neighborhood Leader's Guide
For use exclusively in Nashville, TN

PETE STREET 
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This is a sample of a label template (using Avery #5163 labels) to stick onto each brochure for a \$200 discount from participating contractors.

<p>This brochure is provided courtesy of [name or neighborhood association]</p> <p>GET A \$200 DISCOUNT</p> <p>on your solar hot water system by mentioning this brochure and making a deposit with an installer BY [fill in date].</p>	<p>This brochure is provided courtesy of [name of neighborhood association]</p> <p>GET A \$200 DISCOUNT</p> <p>on your solar hot water system by mentioning this brochure and making a deposit with an installer BY [fill in date].</p>
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Attachment 10

Workshop Follow-Up Survey

The workshop follow-up survey is administered by the community host agency using a Survey Monkey electronic survey. The survey is currently being revised and will be available from the community host agency when it is finalized.

Attachment 11

Hands-On Workshop Calculator

Hands-On Workshop Calculator

Hands-On Workshop Projects: Savings, Cost, and Payback				
Project Description	Workshop Energy Savings*	Annual Savings	Technique Cost for Supplies or Equipment	Payback Period (months)
Clean refrigerator coils	0.17%	\$3.46	\$5.34	18.5
Install outlet/switch insulators	0.65%	\$12.97	\$9.59	8.9
Caulk air leaks, heating/cooling vents	0.26%	\$5.19	\$4.88	11.3
Caulk air leaks, plumbing	0.84%	\$16.86	\$4.88	3.5
Caulk air leaks, windows & doors	1.36%	\$27.24	\$9.76	4.3
Install reusable heating/cooling filter	1.18%	\$23.56	\$8.51	4.3
Caulk air leaks, floors, walls & ceilings	2.01%	\$40.20	\$14.64	4.3
Install door weatherstripping/door sweep	1.10%	\$22.00	\$6.73	3.7
Install attic stairs/hatch weatherstripping	0.75%	\$15.00	\$2.59	2.0
Clean & unkink dryer vent	0.33%	\$6.68	\$5.34	9.6
Insulate pipes near water heater	0.97%	\$19.46	\$11.00	6.8
Install insulating water heater wrap	0.67%	\$13.40	\$17.69	15.8
Install CFLs	3.80%	\$76.00	\$12.68	2.0
Put up window film	0.97%	\$19.48	\$11.72	7.2
Install low-flow faucet aerators & showerhead	4.80%	\$95.93	\$18.96	2.4
Install programmable thermostat	3.24%	\$64.86	\$26.67	4.9
Use power strips for computers & electronics	1.50%	\$30.00	\$6.98	2.8
Totals	24.60%	\$492.29	\$177.96	

*percent energy savings based on a typical annual household energy bill of \$2,000

Attachment 12

Energy Savings Checklist

Energy-Savings Checklist

Page 1



Energy-Savings Checklist

No Cost (bold)
Low Cost (regular)

HEATING AND COOLING TIPS

- ☐ Adjust your thermostat, especially when you are out of the house or asleep.
- ☐ Open shades in winter during the day to let warm sun in, close them at night to keep heat in.
- ☐ Close shades in summer during the day to keep warm sun out.
- ☐ Move furniture, carpet, & drapes from heat registers, & put seating away from drafty windows.
- ☐ Close the damper & doors on your fireplace when not in use.
- ☐ Fans cost less than air conditioning, so use them in the summer even if you have air conditioning.
- ☐ Move lamps & tvs away from air conditioner. Heat makes the air conditioner work more.
- ☐ Install a programmable thermostat & set the temperature to vary during the day & week.
- ☐ Get professional to help seal duct leaks & cracks in walls, floors, & ceilings.
- ☐ Insulate & weatherstrip the attic pull-down stairs.
- ☐ Insulate outlets on exterior walls.
- ☐ Plant shade trees on south, east, & west sides of house. Be sure to shade the air conditioning unit.
- ☐ Install plastic over drafty windows, using inexpensive kit & hair dryer.
- ☐ Fit a piece of mattress foam into fireplace flue to make it airtight when it's not in use.
- ☐ Replace furnace filter regularly. Dirty filters make the furnace work harder.

HOT WATER TIPS

- ☐ Wash clothes in cold water & use cold water for garbage disposal.
- ☐ Take shorter showers & take showers instead of baths. Showers use less water.
- ☐ Install low-flow showerheads & faucet aerators.
- ☐ Put an insulating blanket around your hot water heater IF it is electric.
- ☐ Insulate the pipes in & out of water heater BUT not near vent of gas water heater.

LIGHTING TIPS

- ☐ Turn off lights in unoccupied rooms.
- ☐ Use daylight when possible.
- ☐ Keep bulbs clean so that you get the maximum light from each bulb.
- ☐ Use task lighting (e.g., lamp), rather than lighting the whole room.
- ☐ Replace incandescent bulbs with compact fluorescent bulbs.
- ☐ Remove all halogen torchieres. They are hot & dangerous & make air conditioner work harder.

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Where Neighbors Get Energy Savings™



Energy-Savings Checklist

Page 2



Energy-Savings Checklist

No Cost (bold)
Low Cost (regular)

COOKING AND PLUG-IN TIPS

- ☐ Use small pots, use stove burners smaller than pots, & keep lids on pots.
- ☐ Use microwave instead of stove or oven when you can. Keep it clean to be more efficient.
- ☐ Use glass or ceramic pans in the oven. They heat faster than metal.
- ☐ Don't let preheated oven sit empty unnecessarily & don't open oven door during cooking.
- ☐ Unplug phone chargers when not in use.
- ☐ Line dry your clothes instead of using the dryer.
- ☐ Wash only full loads of laundry.
- ☐ Use power strips to turn off computers & electronics when not in use so they are really off.
- ☐ Check outside dryer vent monthly to see if it is opening & closing freely. Replace if necessary.

REFRIGERATOR TIPS

- ☐ Set the refrigerator temperature at 37 to 40 degrees F & the freezer at 0 to 5 degrees F.
- ☐ Keep the refrigerator coils clean. Dust makes the refrigerator work harder to cool food.
- ☐ Let food cool before putting it in the refrigerator & use lids to keep moisture from escaping.
- ☐ Keep the freezer full, even if you just fill it with containers of water.
- ☐ Reduce cooking time by thawing frozen foods in the refrigerator before cooking them.
- ☐ Don't place your refrigerator next to your stove or other source of heat.
- ☐ If you can pull a piece of paper from a door with a rubber gasket, replace the gasket.

CAR TIPS

- ☐ Accelerate gradually & brake lightly. Mashing pedals uses huge amounts of gas.
- ☐ Drive speed limit on highway. Driving fast increases drag & requires more gas.
- ☐ Take heavy items out of your trunk. It takes more gas to haul more weight.
- ☐ Don't idle your motor. Turn off the car & save gas.
- ☐ Tighten the gas cap to keep gas from evaporating from the gas tank.
- ☐ Park in the shade in the summer. The hot sun evaporates gas from the gas tank.
- ☐ Combine trips & carpool.
- ☐ Keep tires inflated to proper pressure. Low pressure creates resistance & requires more gas.
- ☐ Replace air filters as specified by your manual. Dirty filters mean engine has to work harder.
- ☐ Keep engine in tune. A misfiring spark plug can significantly reduce fuel efficiency.



Where Neighbors Get Energy Savings™

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Attachment 13

Additional Resources Sheet

Additional Resources Sheet

Page 1

ADDITIONAL RESOURCES

Clean Energy Durham

Website: www.cleanenergydurham.org
Blog: cleanenergydurham.wordpress.com
Phone: (919) 323-3244

State and Local

N.C. Solar Center: www.ncsc.ncsu.edu

Created in 1988, the N.C. Solar Center at NCSU serves as a clearinghouse for solar and other renewable-energy programs, information, research, technical assistance and training. The N.C. Solar Center's web site includes a Directory of Renewable-Energy Professionals and an N.C. Green Building Technology Database, as well as general information pertaining to renewable energy, energy efficiency, and alternative fuels.

Financial incentives for renewable energy: www.dsireusa.org

This public database features comprehensive information on state, local, utility, and selected federal incentives that promote renewable energy.

State Energy Office: www.energync.net

North Carolina's State Energy Office is the official state source for energy information and assistance for individuals, businesses, and institutions throughout North Carolina. The website has a lot of good resources, including a toll-free information phone number.

NC Cooperative Extension, E-Conservation Program: www.e-conservation.net

This program is designed to reach and teach consumers to be proactive in reducing their home energy consumption and in saving money through no-and low-cost energy efficiency measures, behavioral changes and home retrofits.

Advanced Energy Corporation: www.advancedenergy.org

This organization provides technical assistance to industry and construction regarding energy conservation and efficiency. Its website has useful technical information, including information for homeowners, on its 'knowledge library' link, and free telephone advice is available by calling the number on the website.

Additional Resources Sheet

Page 2

Weatherization Assistance Program (WAP):

http://www1.eere.energy.gov/wip/wap_apply.html

If your household income is below the amount below, you may qualify for free home energy upgrades. Priority for the most expensive upgrades is for the elderly, disabled, and families with children. Available to both renters and homeowners.

Eligibility:	Income below	\$21,660 for family of 1	\$51,580 for family of 5
		\$29,140 for family of 2	\$59,060 for family of 6
		\$36,620 for family of 3	\$66,540 for family of 7
		\$44,100 for family of 4	\$74,020 for family of 8

National

U.S. Department of Energy (DOE): www.eere.energy.gov

This DOE site provides information on energy efficiency in homes and other buildings, as well as basic information on various forms of renewable energy, such as solar, biomass, geothermal, wind, and hydro. (See also www.nrel.gov.)

Energy Star: www.energystar.gov

When buying new household products, look for those with the U.S. government's Energy Star logo. These products meet strict guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy, and will reduce energy use and power bills. This web site provides a list of 40 types of products meeting Energy Star's standards.

Energy Information Administration: www.eia.doe.gov

The U.S. Department of Energy's Energy Information Administration is a source of data on energy.

Home Energy Saver™: hes.lbl.gov

The Home Energy Saver™ (HES) empowers homeowners and renters to save money, live better, and help the earth by reducing energy use in their homes. HES recommends energy-saving upgrades that are appropriate to the home and make sense for the home's climate and local energy prices.

